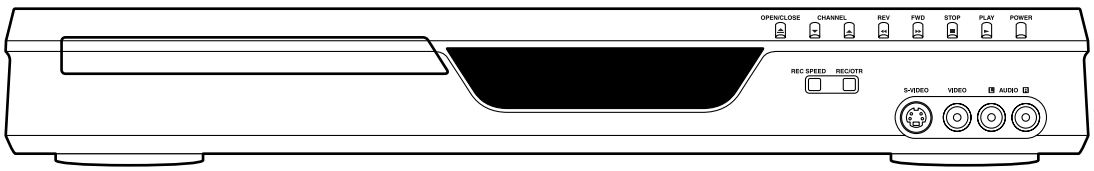
SYLVANIA

SERVICE MANUAL

DVD RECORDER

DVR90DF



IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all Funai Equipment. The service procedures recommended by Funai and described in this service manual are effective methods of performing service operations. Some of these service special tools should be used when and as recommended.

It is important to note that this service manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It also is important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. Funai could not possibly know, evaluate and advice the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, Funai has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by Funai must first use all precautions thoroughly so that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

TABLE OF CONTENTS

SPECIFICATIONS

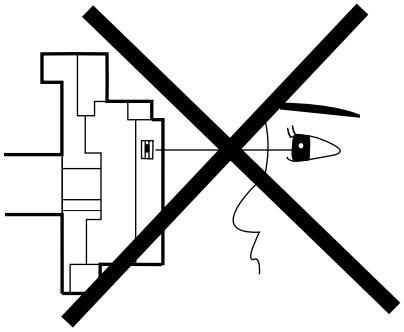
Item	Conditions	Unit	Nominal	Limit
1. VIDEO				
1-1. Video Output	75 Ω load	Vp-p	1.0	
1-2. S-Video Output				
Y (Luminance)	75 Ω load	Vp-p	1.0	
C (Chrominance)	75 Ω load	Vp-p	0.286	
1-3. Component Output				
Y (Luminance)	75 Ω load	Vp-p	1.0	
Cb (U)	75 Ω load	Vp-p	0.7	
Cr (V)	75 Ω load	Vp-p	0.7	
2. AUDIO				
2-1. Output Level		Vrms	2.0	
2-2. Frequency Response				
DVD-VIDEO LPCM	fs = 96 kHz	Hz	4 - 44 k	
	fs = 48 kHz	Hz	4 - 22 k	
Audio CD	fs = 44.1 kHz	Hz	4 - 20 k	
2-3. Signal/Noise Ratio				
DVD-VIDEO LPCM		dB	120	
CD		dB	120	
REC & Playback	Input: 2 Vrms, Rec Speed: XP	dB	96	
2-4. Dynamic Range				
DVD-VIDEO LPCM		dB	102	
CD		dB	98	
REC & Playback	Input: 2 Vrms, Rec Speed: XP	dB	96	
2-5. THD+N	1 kHz, 0 dB			
DVD-VIDEO LPCM		%	0.002	
CD		%	0.002	
REC & Playback	Input: 2 Vrms, Rec Speed: XP	%	0.004	

Notes:

1. All Items are measured without pre-emphasis unless otherwise specified.
2. Power supply: AC 120 V, 60 Hz
3. Load imp.: 100 kΩ
4. Room ambient : 5 °C ~ 40 °C

LASER BEAM SAFETY PRECAUTIONS

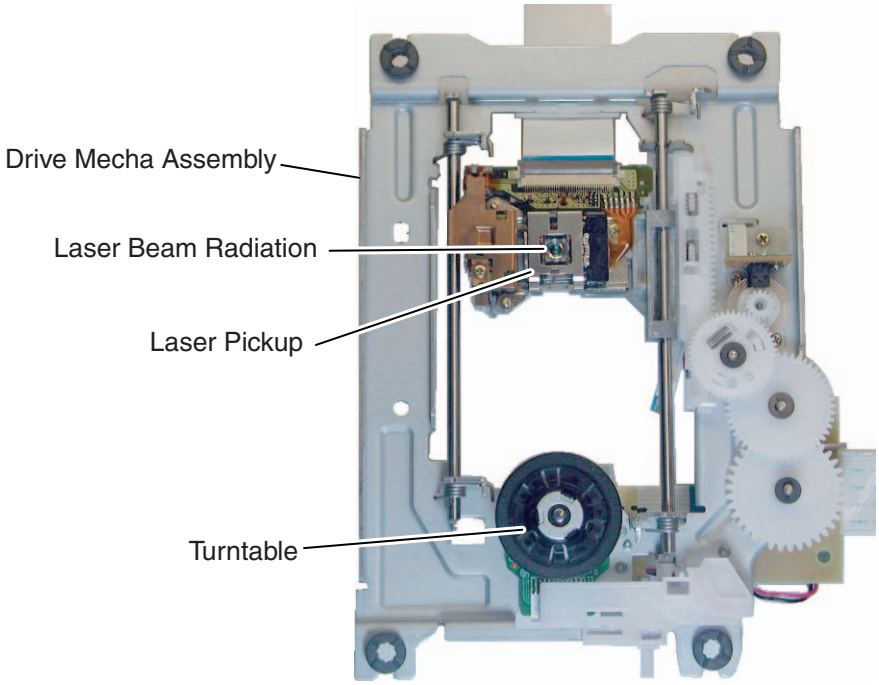
This DVD player uses a pickup that emits a laser beam.



Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 30 cm away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.

CAUTION: Use of controls and adjustments, or doing procedures other than those specified herein, may result in hazardous radiation exposure.



Location: Inside Top of DVD mechanism.

IMPORTANT SAFETY PRECAUTIONS

Product Safety Notice

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by a ⚠ on schematics and in parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards. The Product's Safety is under review continuously and new instructions are issued whenever appropriate. Prior to shipment from the factory, our products are carefully inspected to confirm with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

Precautions during Servicing

A. Parts identified by the ⚠ symbol are critical for safety. Replace only with part number specified.

B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements. Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.

C. Use specified internal wiring. Note especially:
1) Wires covered with PVC tubing
2) Double insulated wires
3) High voltage leads

D. Use specified insulating materials for hazardous live parts. Note especially:
1) Insulation tape
2) PVC tubing
3) Spacers
4) Insulators for transistors

E. When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.

F. Observe that the wires do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).

G. Check that replaced wires do not contact sharp edges or pointed parts.

H. When a power cord has been replaced, check that 5 - 6 kg of force in any direction will not loosen it.

I. Also check areas surrounding repaired locations.

J. Be careful that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

K. Crimp type wire connector
The power transformer uses crimp type connectors which connect the power cord and the primary side of the transformer. When replacing the transformer, follow these steps carefully and precisely to prevent shock hazards.
Replacement procedure
1) Remove the old connector by cutting the wires at a point close to the connector.
Important: Do not re-use a connector. (Discard it.)
2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.
3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.
4) Use a crimping tool to crimp the metal sleeve at its center. Be sure to crimp fully to the complete closure of the tool.

L. When connecting or disconnecting the internal connectors, first, disconnect the AC plug from the AC outlet.

Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts, and wires have been returned to their original positions. Afterwards, do the following tests and confirm the specified values to verify compliance with safety standards.

1. Clearance Distance

When replacing primary circuit components, confirm specified clearance distance (d) and (d') between soldered terminals, and between terminals and surrounding metallic parts. (See Fig. 1)

Table 1: Ratings for selected area

AC Line Voltage	Clearance Distance (d), (d')
120 V	≥ 3.2 mm (0.126 inches)

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

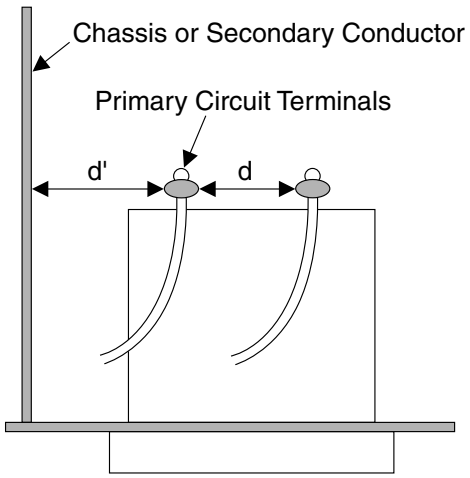


Fig. 1

2. Leakage Current Test

Confirm the specified (or lower) leakage current between B (earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.) is lower than or equal to the specified value in the table below.

Measuring Method (Power ON):

Insert load Z between B (earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across the terminals of load Z. See Fig. 2 and the following table.

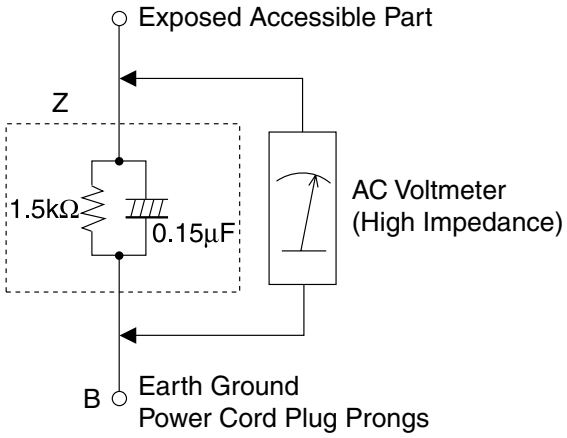


Fig. 2

Table 2: Leakage current ratings for selected areas

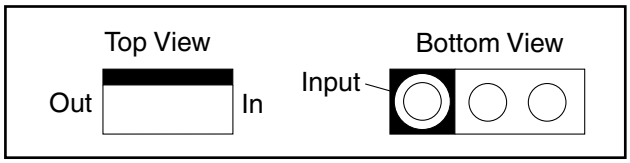
AC Line Voltage	Load Z	Leakage Current (i)	Earth Ground (B) to:
120 V	0.15 μF CAP. & 1.5 kΩ RES. Connected in parallel	i ≤ 0.5 mA Peak	Exposed accessible parts

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

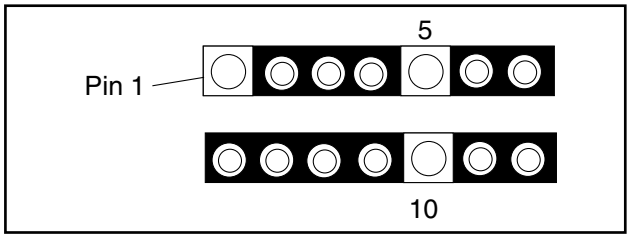
STANDARD NOTES FOR SERVICING

Circuit Board Indications

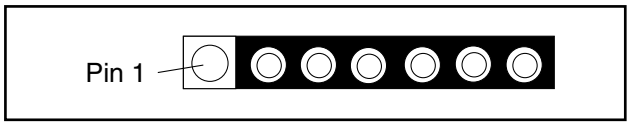
1. The output pin of the 3 pin Regulator ICs is indicated as shown.



2. For other ICs, pin 1 and every fifth pin are indicated as shown.

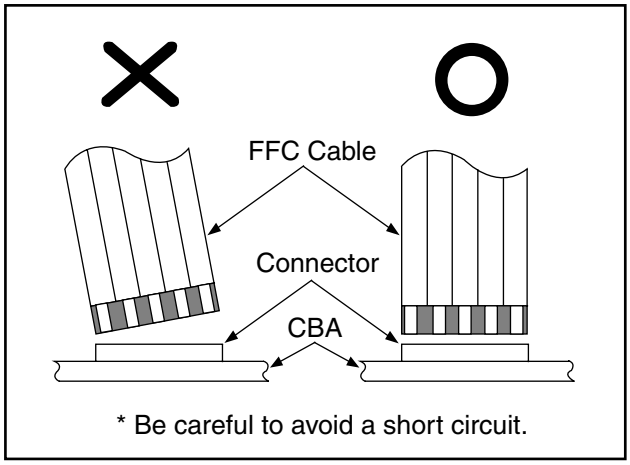


3. The 1st pin of every male connector is indicated as shown.



Instructions for Connectors

1. When you connect or disconnect the FFC (Flexible Foil Connector) cable, be sure to first disconnect the AC cord.
2. FFC (Flexible Foil Connector) cable should be inserted parallel into the connector, not at an angle.



Pb (Lead) Free Solder

When soldering, be sure to use the Pb free solder.

How to Remove / Install Flat Pack-IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:

1. Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)

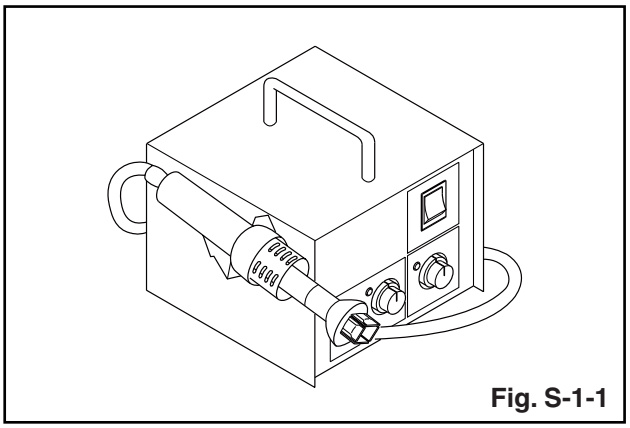


Fig. S-1-1

2. Remove the flat pack-IC with tweezers while applying the hot air.
3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

CAUTION:

1. The Flat Pack-IC shape may differ by models. Use an appropriate hot-air flat pack-IC desoldering machine, whose shape matches that of the Flat Pack-IC.
2. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)

3. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

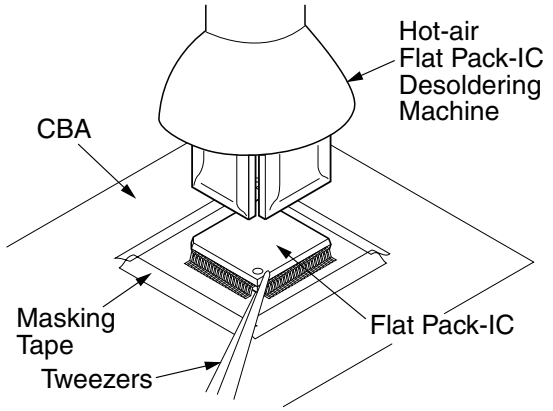


Fig. S-1-2

With Soldering Iron:

1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

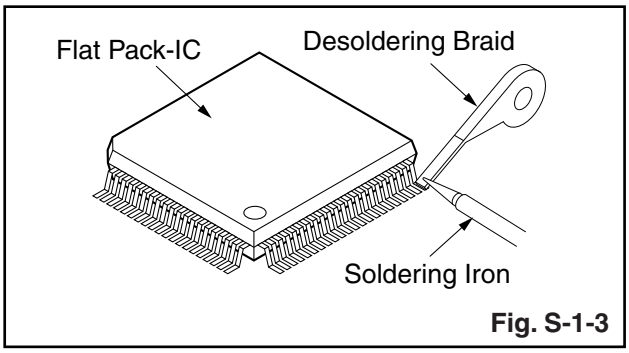


Fig. S-1-3

2. Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig. S-1-4)

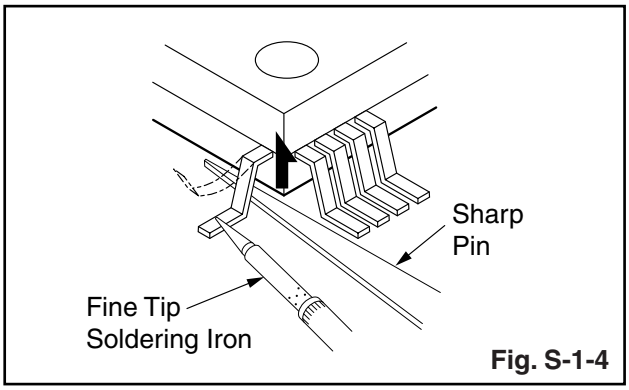


Fig. S-1-4

3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

With Iron Wire:

1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)
2. Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.
3. While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5.
4. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
5. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Note: When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.

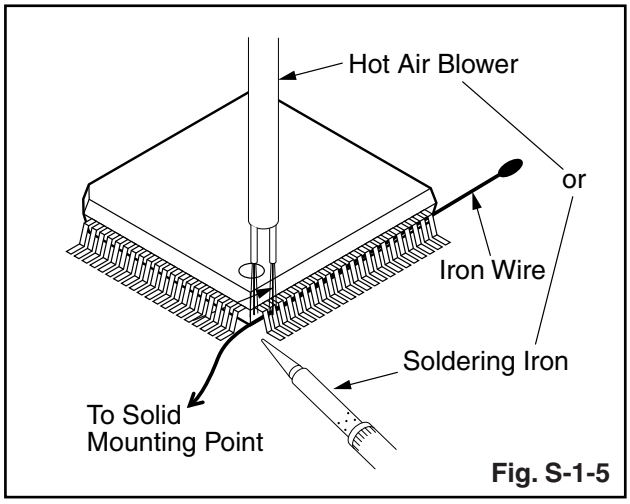


Fig. S-1-5

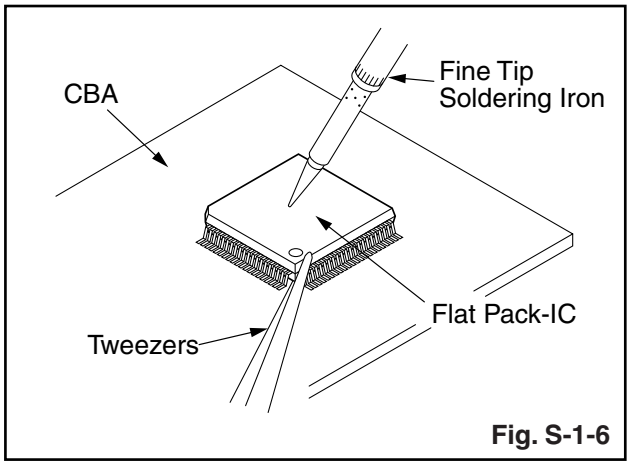


Fig. S-1-6

2. Installation

1. Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.
2. The "●" mark on the flat pack-IC indicates pin 1. (See Fig. S-1-7.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig. S-1-8.)
3. Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.

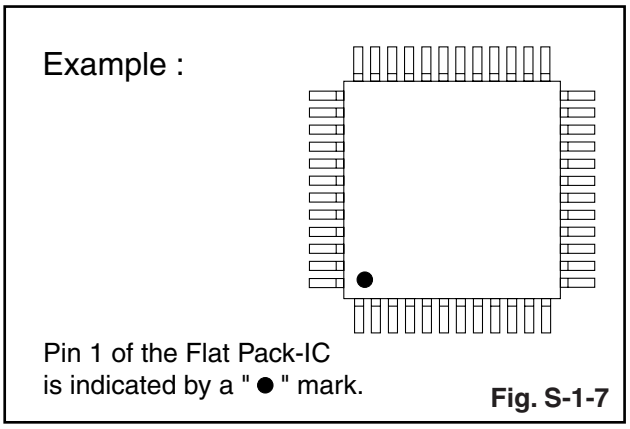


Fig. S-1-7

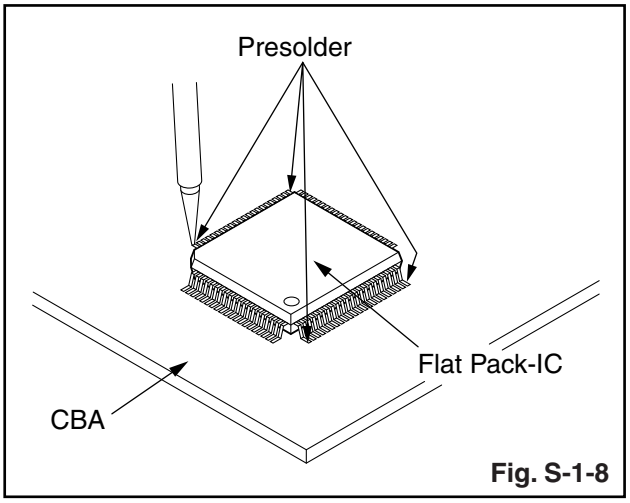


Fig. S-1-8

Instructions for Handling Semi-conductors

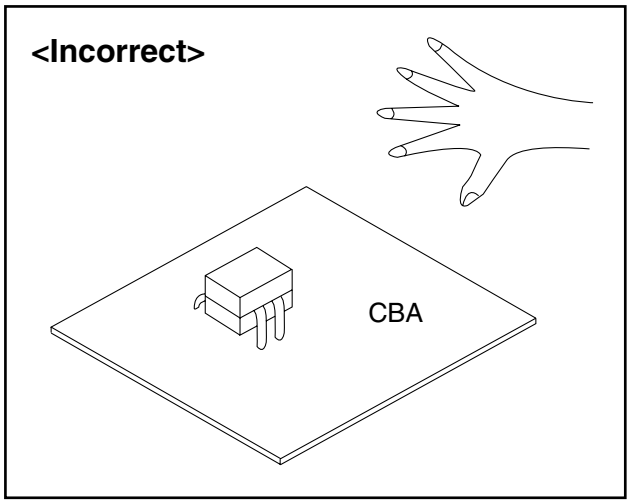
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

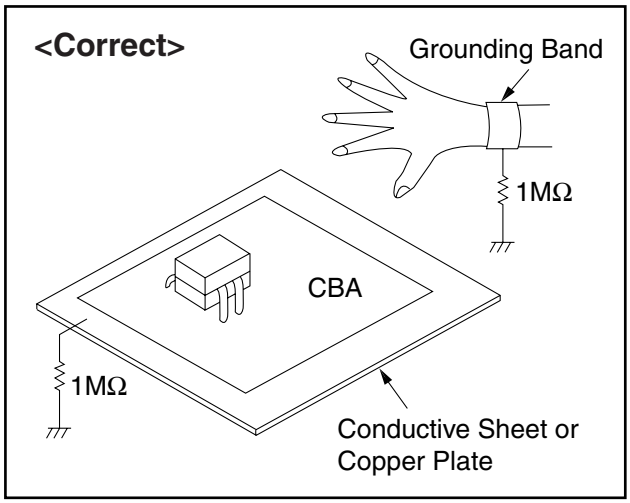
1. Ground for Human Body

Be sure to wear a grounding band (1 MΩ) that is properly grounded to remove any static electricity that may be charged on the body.

2. Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding (1 MΩ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors with your clothing.

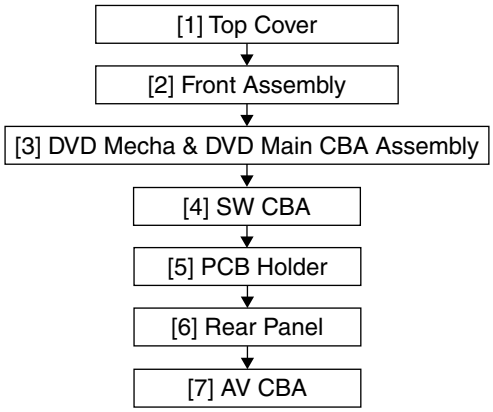




CABINET DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

This flowchart indicates the disassembly steps to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route, and dress the cables as they were originally.



2. Disassembly Method

ID/ Loc. No.	Part	Removal		
		Fig. No.	Remove/*Unhook/ Unlock/Release/ Unplug/Desolder	Note
[1]	Top Cover	D1	7(S-1)	---
[2]	Front Assembly	D2	*4(L-1), *3(L-2)	1
[3]	DVD Mecha & DVD Main CBA Assembly	D3	4(S-2), *CN501, *CN601	---
[4]	SW CBA	D4	(S-3)	---
[5]	PCB Holder	D4	2(S-4)	---
[6]	Rear Panel	D5	2(S-5), 6(S-6)	---
[7]	AV CBA	D5	3(S-7)	---
↓ (1)	↓ (2)	↓ (3)	↓ (4)	↓ (5)

Note:

(1) Identification (location) No. of parts in the figures

(2) Name of the part

(3) Figure Number for reference

(4) Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.
P = Spring, L = Locking Tab, S = Screw,
CN = Connector
* = Unhook, Unlock, Release, Unplug, or Desolder
e.g. 2(S-2) = two Screws (S-2),
2(L-2) = two Locking Tabs (L-2)

(5) Refer to “Reference Notes.”

Reference Notes

1. **CAUTION 1:** Locking Tabs (L-1) and (L-2) are fragile. Be careful not to break them.

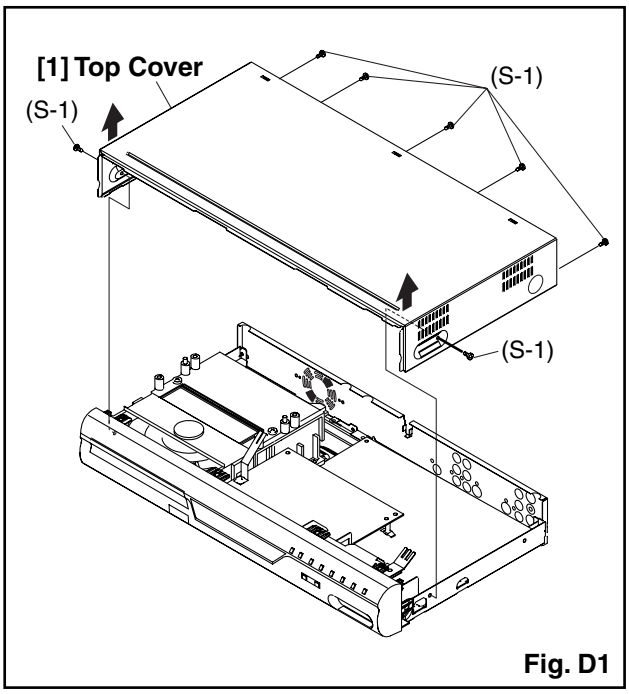


Fig. D1

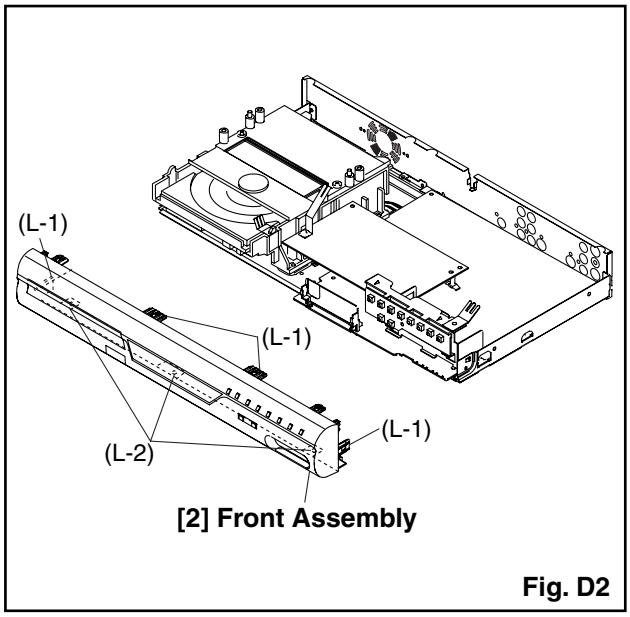


Fig. D2

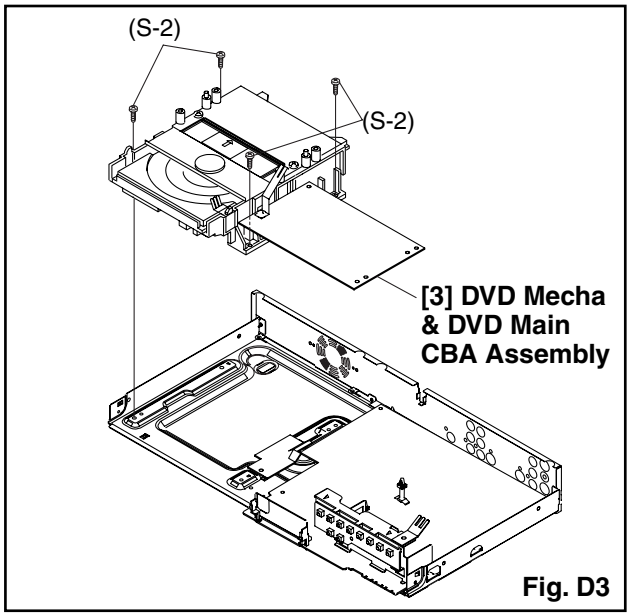


Fig. D3

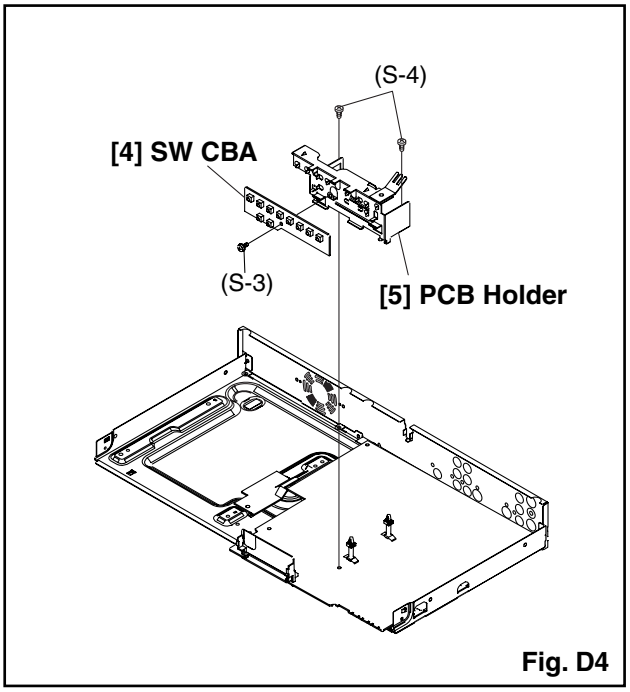


Fig. D4

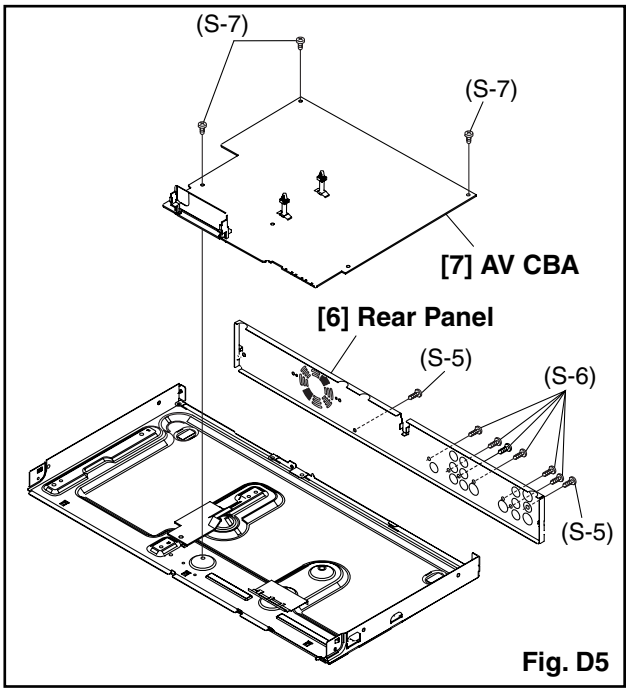


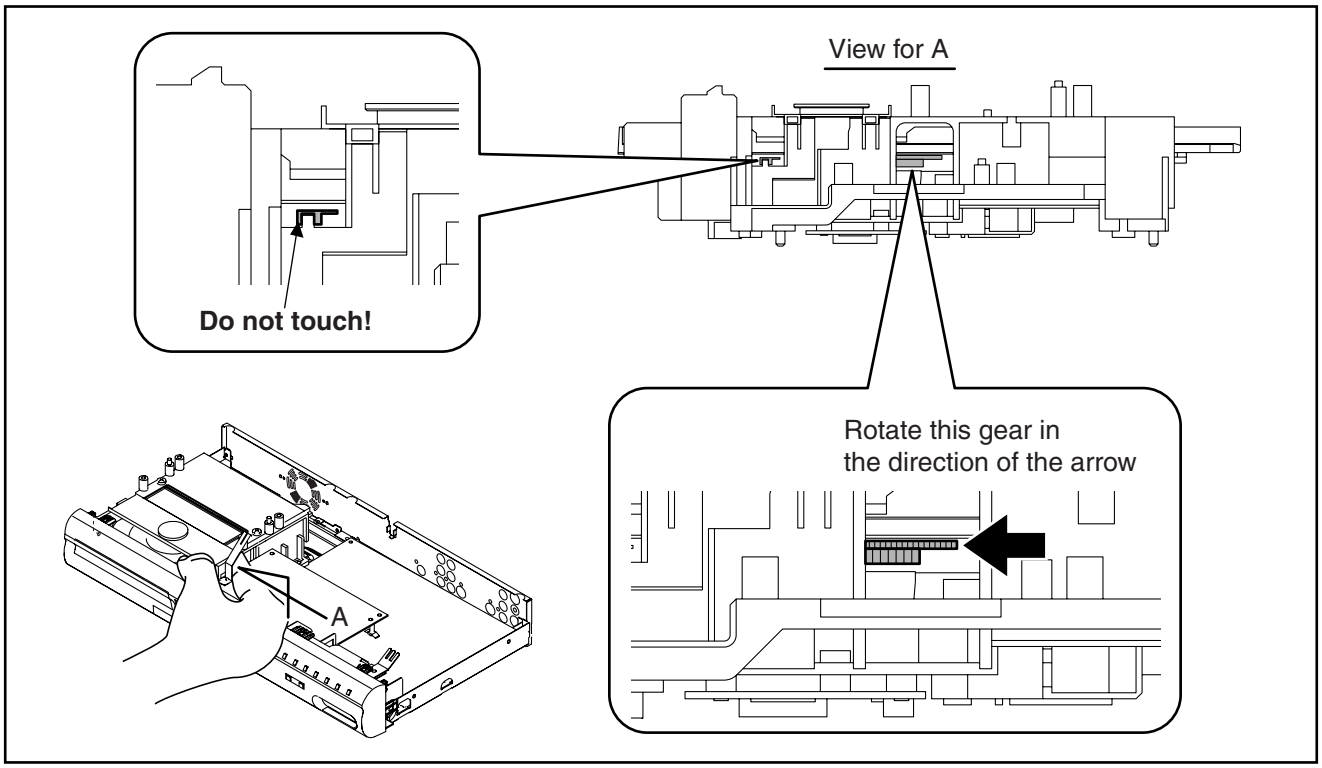
Fig. D5

3. How to Eject Manually

< Method 1 >

Note: When servicing, do not touch white resin part as shown below.
When rotating the gear, be not damaged with the gear.

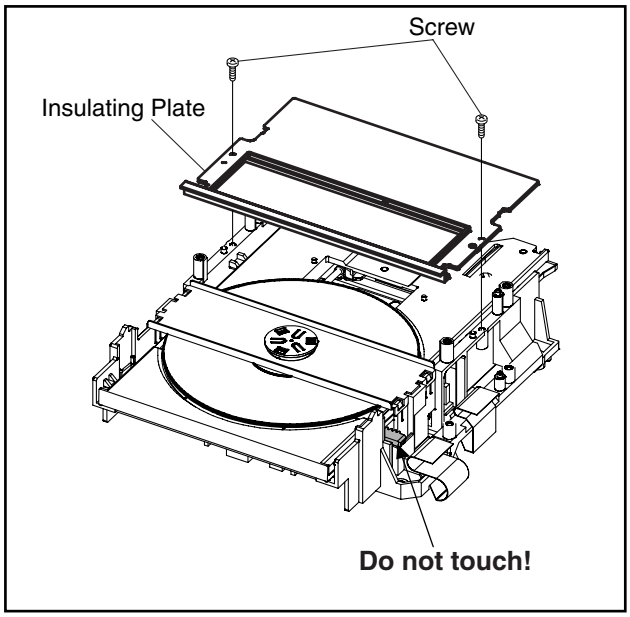
1. Remove the Top Cover.
2. Rotate the gear in the direction of the arrow with a hand as shown below.



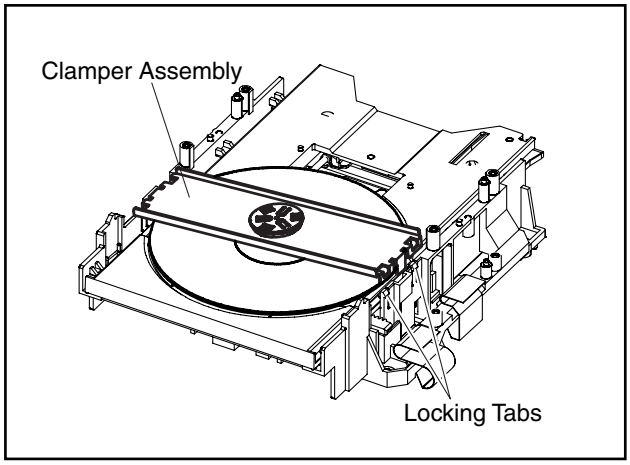
< Method 2 >

Note: When servicing, do not touch white resin part as shown below.

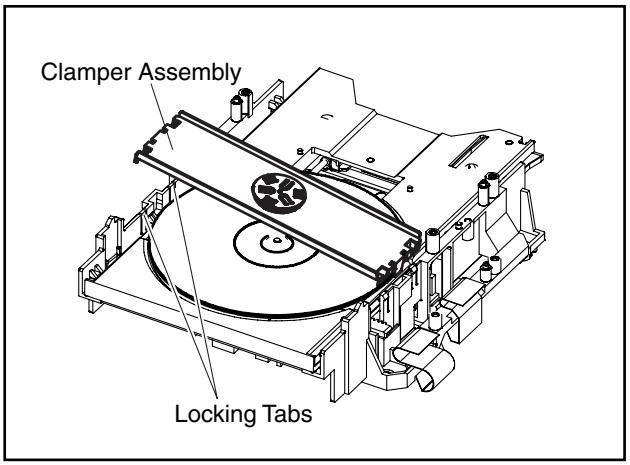
1. Remove the Top Cover, the Front Assembly and the DVD Mecha & DVD Main Assembly. Then, remove the DVD Mecha Unit.
2. Remove two screws, and remove the Insulating Plate.



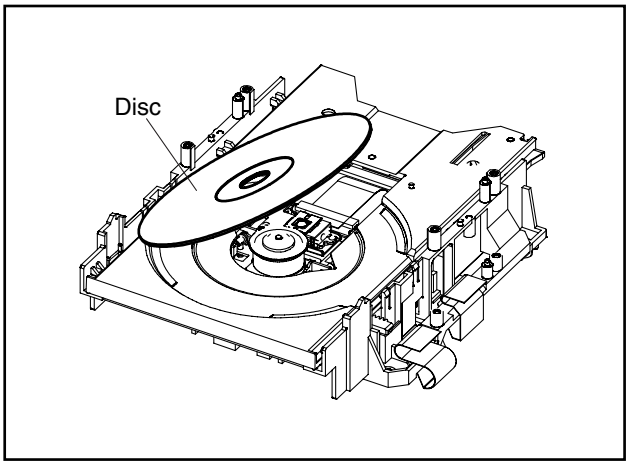
3. Release two Locking Tabs, and lift up one side of the Clamper Assembly.



4. Release two Locking Tabs, and remove the Clamper Assembly.



5. Remove the disc.



HOW TO INITIALIZE THE DVD RECORDER

To put the program back at the factory-default, initialize the DVD recorder as the following procedure.

1. Turn the DVD recorder on.
2. Confirm that no disc is loaded or that the disc tray is open. To put the DVD recorder into the Version display mode, press [CM SKIP], [1], [2], and [3] buttons on the remote control in the order. Fig. a appears on the screen.

*1: "*******" differ depending on the models.
*2: Firmware Version differ depending on the models, and indication is one example.

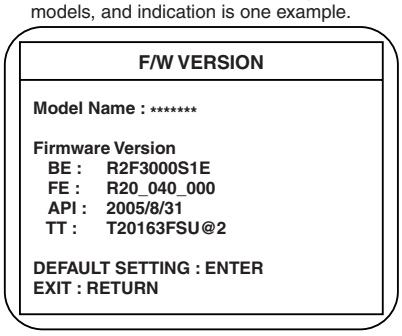


Fig. a Version Display Mode Screen

3. Press [ENTER] button, then the DVD recorder starts initializing. When the initializing is completed, the DVD recorder exits the Version display mode and turns off the power automatically.
   * To move into the Normal mode from the Version display mode, press [RETURN] button on the remote control instead of [ENTER] button.
   * When [POWER] button is pressed before [ENTER] button is pressed, the DVD recorder exits the Version display mode, then the power turns off.

FIRMWARE RENEWAL MODE

1. Turn the power on and remove the disc on the tray.
2. To put the DVD recorder into version up mode, press [CM SKIP], [6], [5], and [4] buttons on the remote control unit in the order. The tray will open automatically.
   Fig. a appears on the screen and Fig. b appears on the VFD.

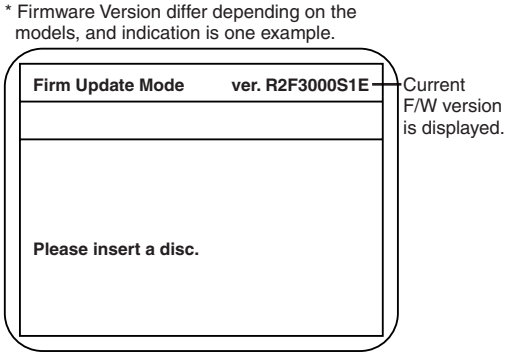


Fig. a Version Up Mode Screen

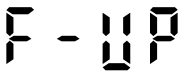


Fig. b VFD in Version Up Mode

3. Load the disc for version up.
   Fig. c appears on the screen. The file on the top is highlighted as the default.
   When there is only one file to exist, Step 4 will start automatically.

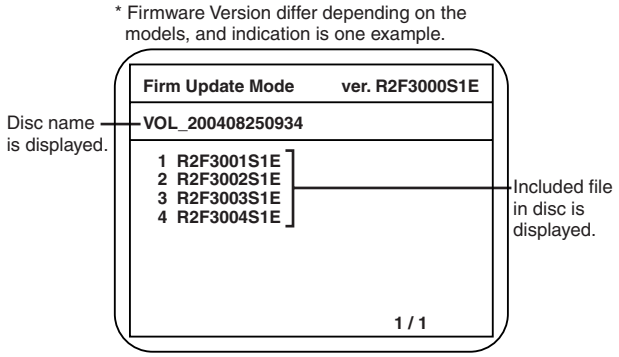


Fig. c Update Disc Screen

4. Select the firmware version using arrow buttons, then press [ENTER].
   Fig. d appears on the screen and Fig. e appears on the VFD. The DVD recorder starts updating.

   About VFD indication of Fig. e:

   1) When Fig. d is displayed on the screen, “F-UP” is displayed on the VFD.
   2) When “Firmware Updating... XX% Complete.” is displayed on the screen, “XX%” is displayed on the VFD.

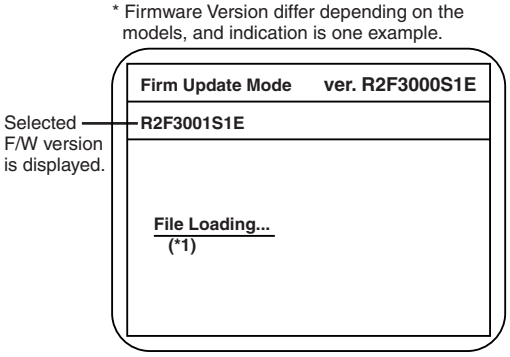


Fig. d Programming Mode Screen

Fig. e VFD in Programming Mode (Example)

The appearance shown in (*1) of Fig. d is described as follows.

No.	Appearance	State
1	File Loading...	Sending files into the memory
2	Firmware Updating... XX% Complete.	Writing new version data
---	Firmware Update Failure	Failed in updating

5. After updating is finished, the tray opens automatically.
   Fig. f appears on the screen and Fig. g appears on the VFD.

* Firmware Version differ depending on the models, and indication is one example.

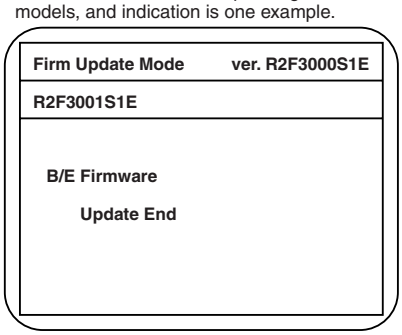


Fig. f Completed Program Mode Screen

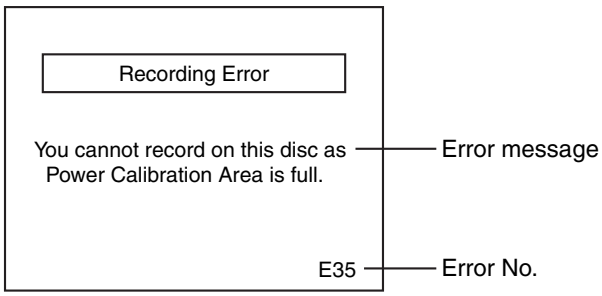
Fig. g VFD in Completed Program Mode

   At this time, no buttons are available.

6. Press [POWER] button to turn the power off. Then press it again.

FUNCTION INDICATOR SYMBOLS

Note: If an error occurs, a message with the error number appears on the screen.

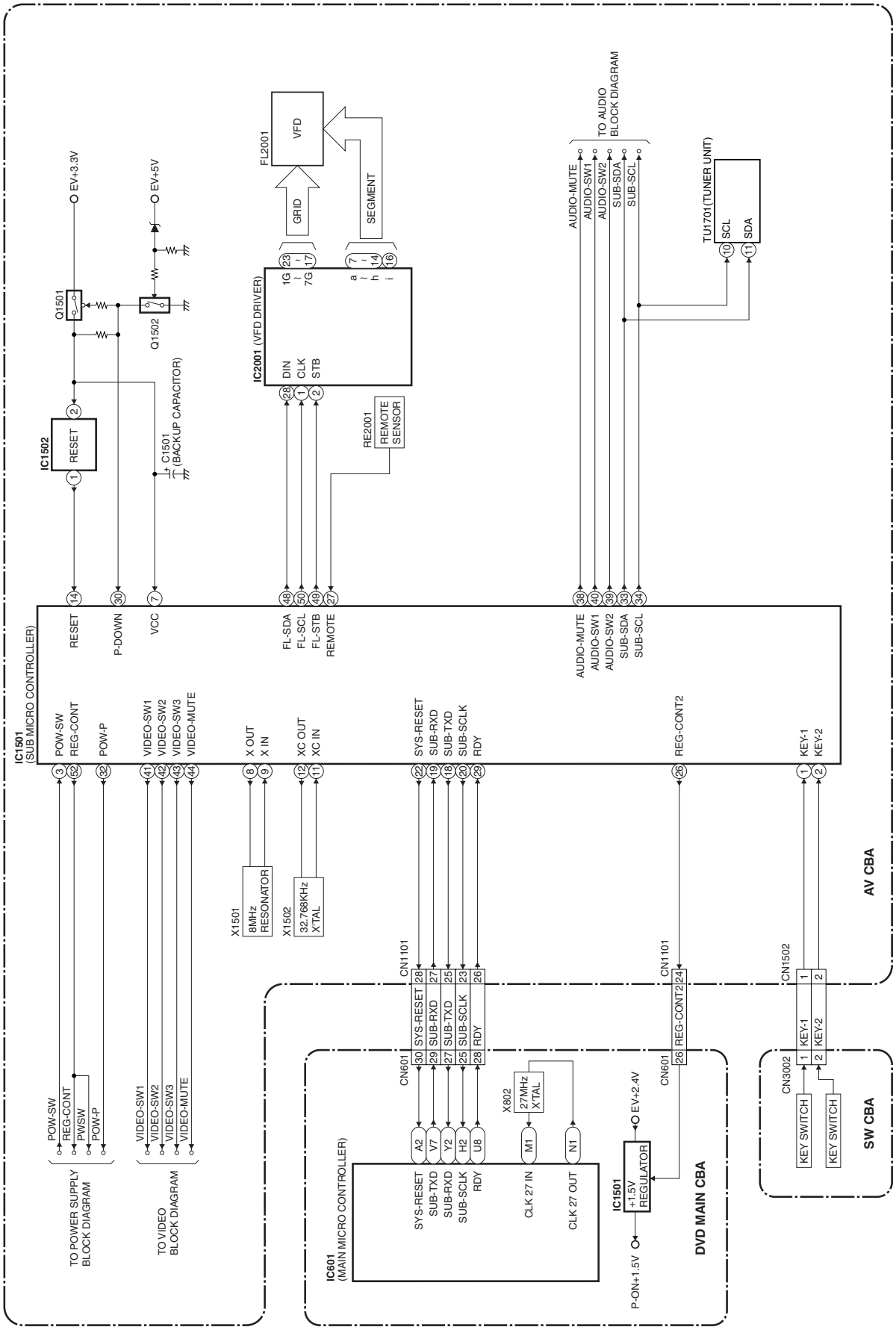


Message	Solution	Error No.	Error Description	Priority
Can not record on this disc.	Insert the recordable disc, and ensure the disc status satisfies the recording requirements.	1	An error occurs during data reading.	-
		2	There is no reply for 15 seconds in Test Unit Ready.	-
		3	Cannot write the data after trying to write three times.	-
		4	An error occurs with OPC.	-
		5	During recovery in a record.	-
		6	An error occurs even if it do recovery of a record three times.	-
		7	An error occurs in a format.	-
		8	It cannot start an encode.	-
		9	There is not NV_PCK/RDI_PCK in data doing an encode.	-
		10	Encode Pause condition continued for 10 minutes.	-
		11	Encode Pause condition continued by normal REC condition for 10 minutes.	-
		12	Differ in an address and do not get StreamID of RDI/VIDEO.	-
		13	It is a reply that “ATAPI is not readable.”	-
		14	Cannot write the data after recovering SMALL VMGI.	-
		15	Cannot write the data after DVD-R Reverse Track.	-
		16	An error occurs in Finalize Close.	-
		17	An error occurs in Rec Stop Close.	-
		18	An error occurs in PCA Full (DVD_R).	-
		19	Safety Stop occurs during editing.	-
		20	High Speed Disc.	2
		21	The disc which is not formatted.	5
		22	The disc that Disc Error occurred.	3
		23	The -R Disc of VR Mode.	6
		24	The disc except DVD-R/RW or DVD-R finalized disc	1
This program is not allowed to be recorded.	You cannot record copy prohibited programs.	25	During the Macrovision picture input.	11
		26	During the CGMS picture input.	12

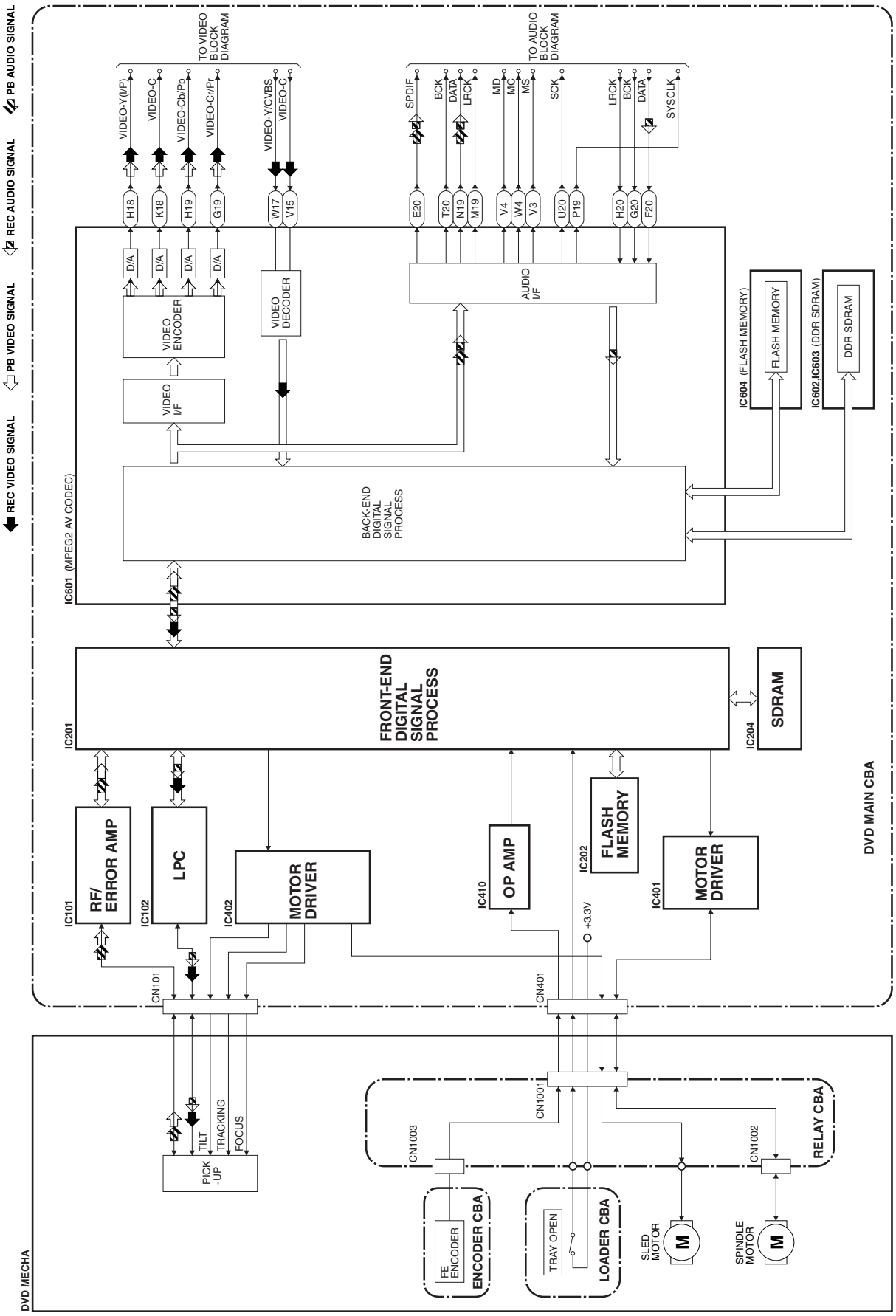
Message	Solution	Error No.	Error Description	Priority
This program is not recordable in Video mode.	Set “DVD-RW Recording Format” to “VR mode”.	27	During the CGMS picture (possible a record once) input. (Video Format Disc)	12
This program is not allowed to be recorded on this disc.	Insert a ver.1.1 CPRM compatible DVD-RW disc.	28	During the CGMS picture (possible a record once) input. (Disc which there is not for the correspondence to VR Format CPRM)	12
This disc is protected and not recordable.	Release the disc protect setting in the Disc Setting menu.	29	Disc Protected Disc.	7
Disc is full. (No area for new recording)	Insert the recordable disc with enough recording space.	30	There is no it in a space field.	5
You cannot record more than 99 titles on one disc. (The maximum is 99.)	Delete unnecessary titles.	31	It is recorded a 99 title. (Video Format Disc)	7
		32	It is recorded a 99 title. (VR Format Disc)	8
You cannot record more than 999 chapters on one disc. (The maximum is 999.)	Delete unnecessary chapter markers.	33	There is 999 number of total chapter. (VR Format Disc)	9
You cannot record on this disc as Control Information is full.	Delete unnecessary titles.	34	There is not a space to a record field of control information.	10
You cannot record on the disc as Power Calibration Area is full.	Insert a new disc.	35	PCA Full. (in REC start)	4
This disc is already finalized.	Release the finalizing for this disc.	36	It is done Finalize. (Video Format Disc)	6
Can not record on this disc.	Repeat the same operation.	37	Access to Memory Area range outside.	-
		38	Sector Address is wrong.	-
		39	BUP writing error of chapter editing.	-

BLOCK DIAGRAMS

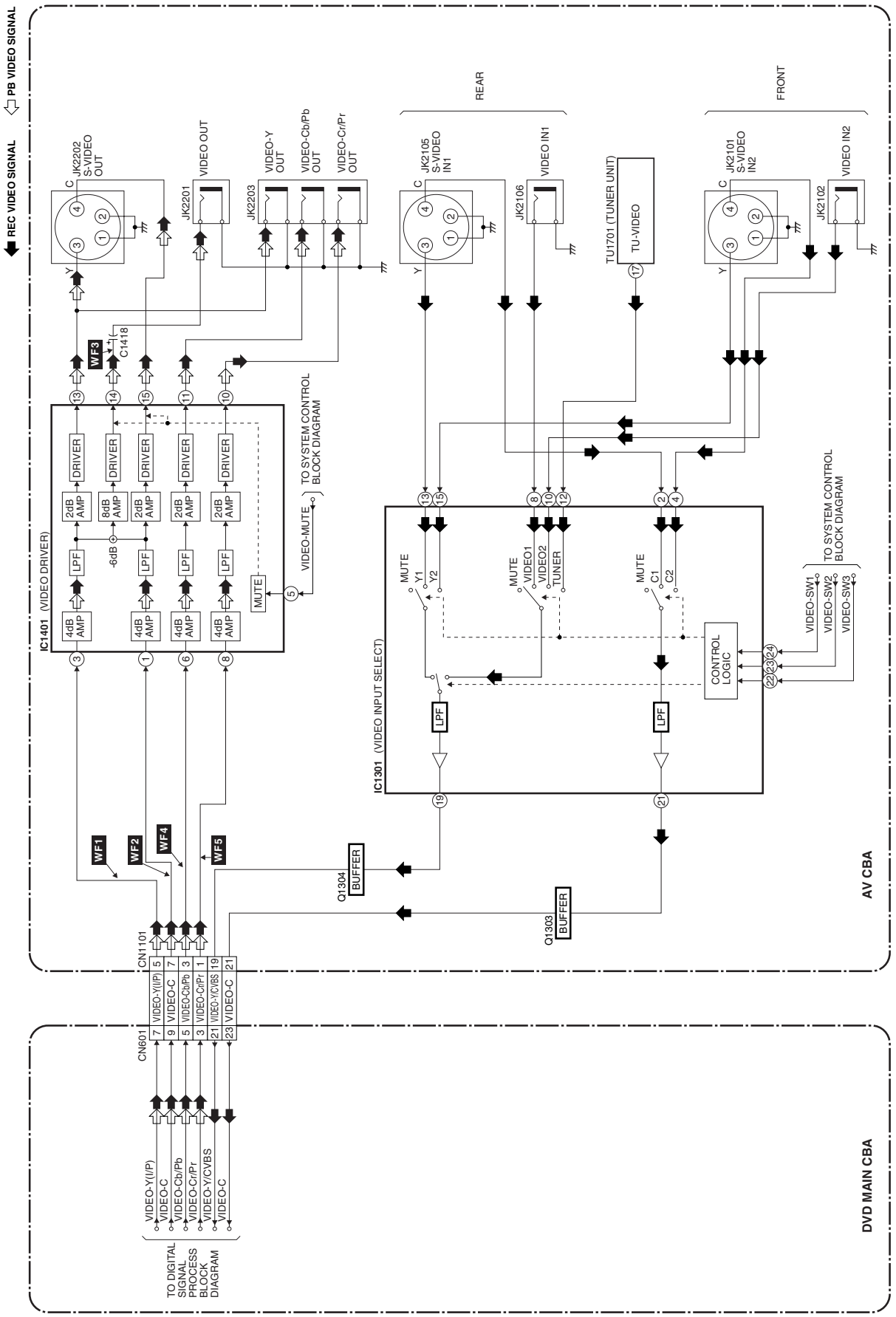
System Control Block Diagram



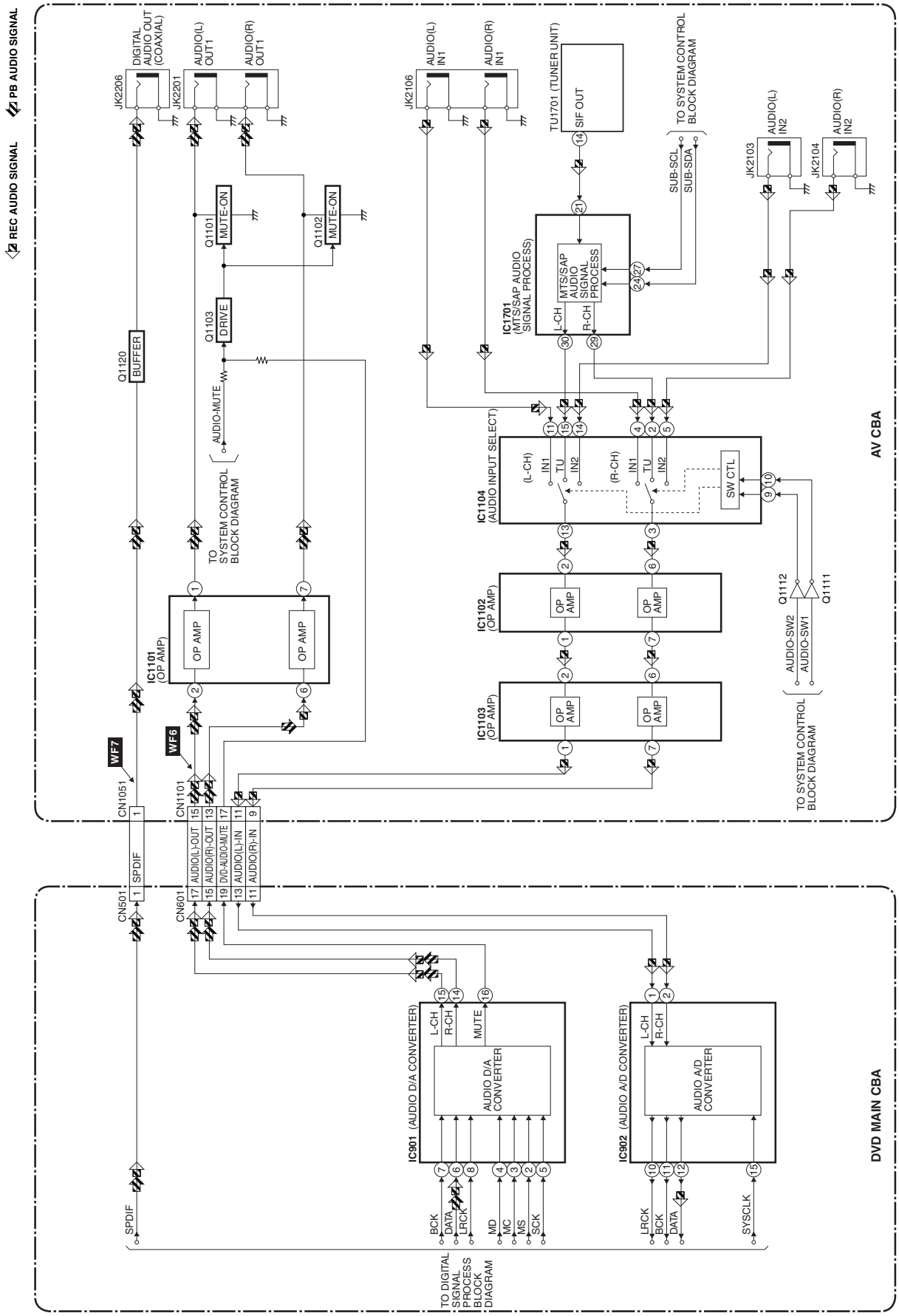
Digital Signal Process Block Diagram



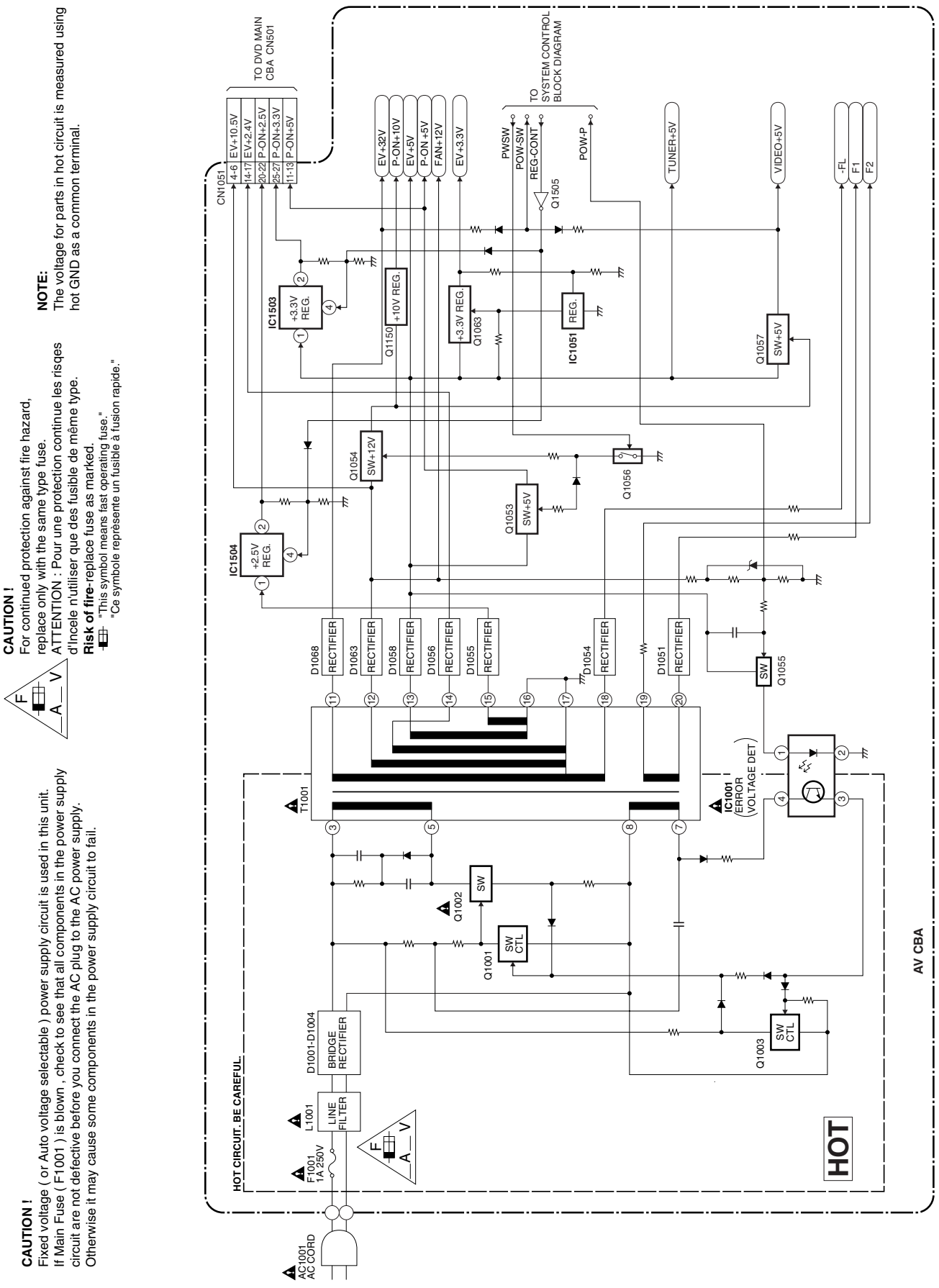
Video Block Diagram



Audio Block Diagram



Power Supply Block Diagram



SCHEMATIC DIAGRAMS / CBA'S AND TEST POINTS

Standard Notes

WARNING

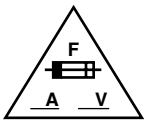
Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark "⚠" in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Notes:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
2. All resistance values are indicated in ohms ($K = 10^3$, $M = 10^6$).
3. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
4. All capacitance values are indicated in μF ($P = 10^{-6}$ μF).
5. All voltages are DC voltages unless otherwise specified.

LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. CAUTION:



FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQES D'INCELE N'UTILISER QUE DES FUSIBLE DE MÊME TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.

This symbol means fast operating fuse.
Ce symbole reprèsente un fusible à fusion rapide.

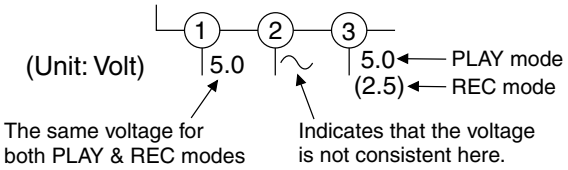
2. CAUTION:

Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F1001) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

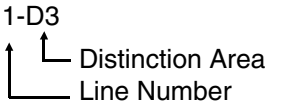
3. Note:

1. Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.
2. To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

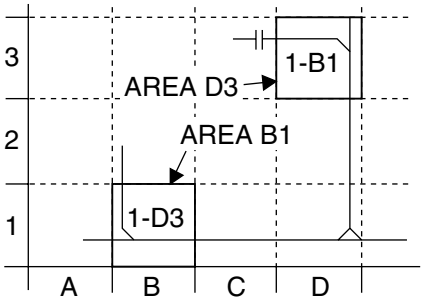
4. Voltage indications for PLAY and REC mode on the schematics are as shown below:



5. How to read converged lines



Examples:
1. "1-D3" means that line number "1" goes to area "D3".
2. "1-B1" means that line number "1" goes to area "B1".



6. Test Point Information

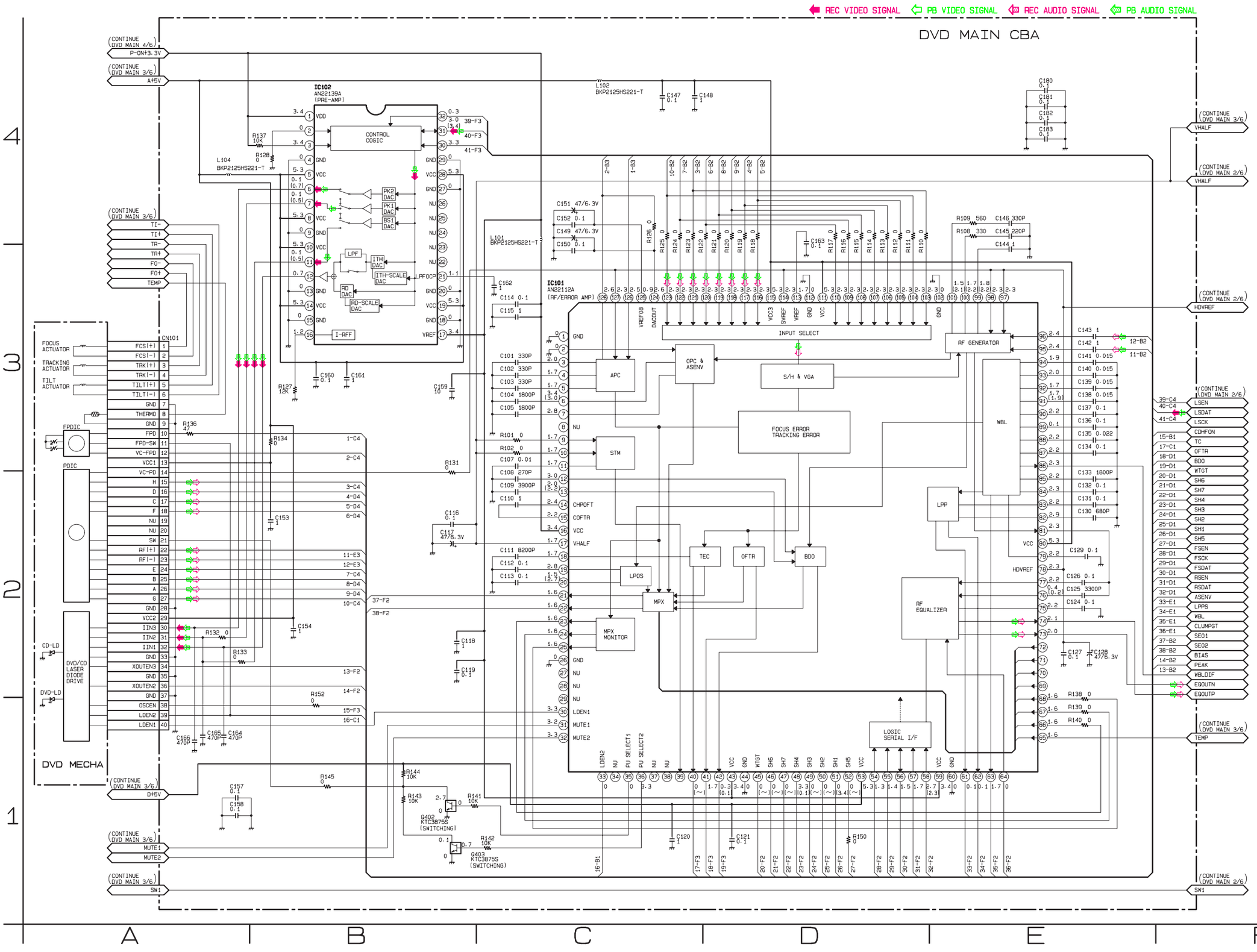
 : Indicates a test point with a jumper wire across a hole in the PCB.

 : Used to indicate a test point with a component lead on foil side.

 : Used to indicate a test point with no test pin.

 : Used to indicate a test point with a test pin.

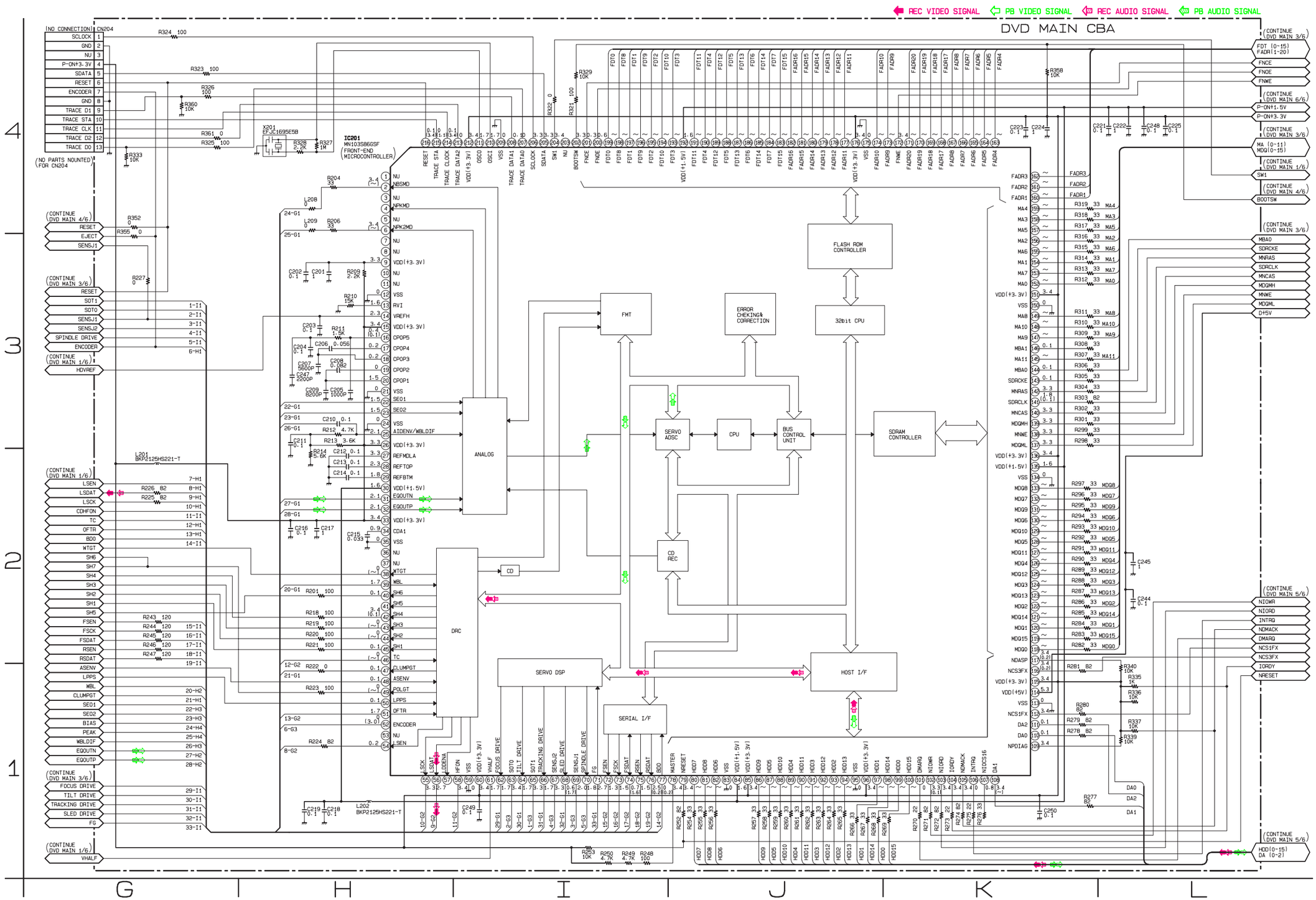
DVD Main 1/6 Schematic Diagram



DVD MAIN 1/6

Ref No.	Position
ICS	
IC101	C-3
IC102	B-4
TRANSISTORS	
Q402	B-1
Q403	B-1
CONNECTOR	
CN101	A-3

DVD Main 2/6 Schematic Diagram



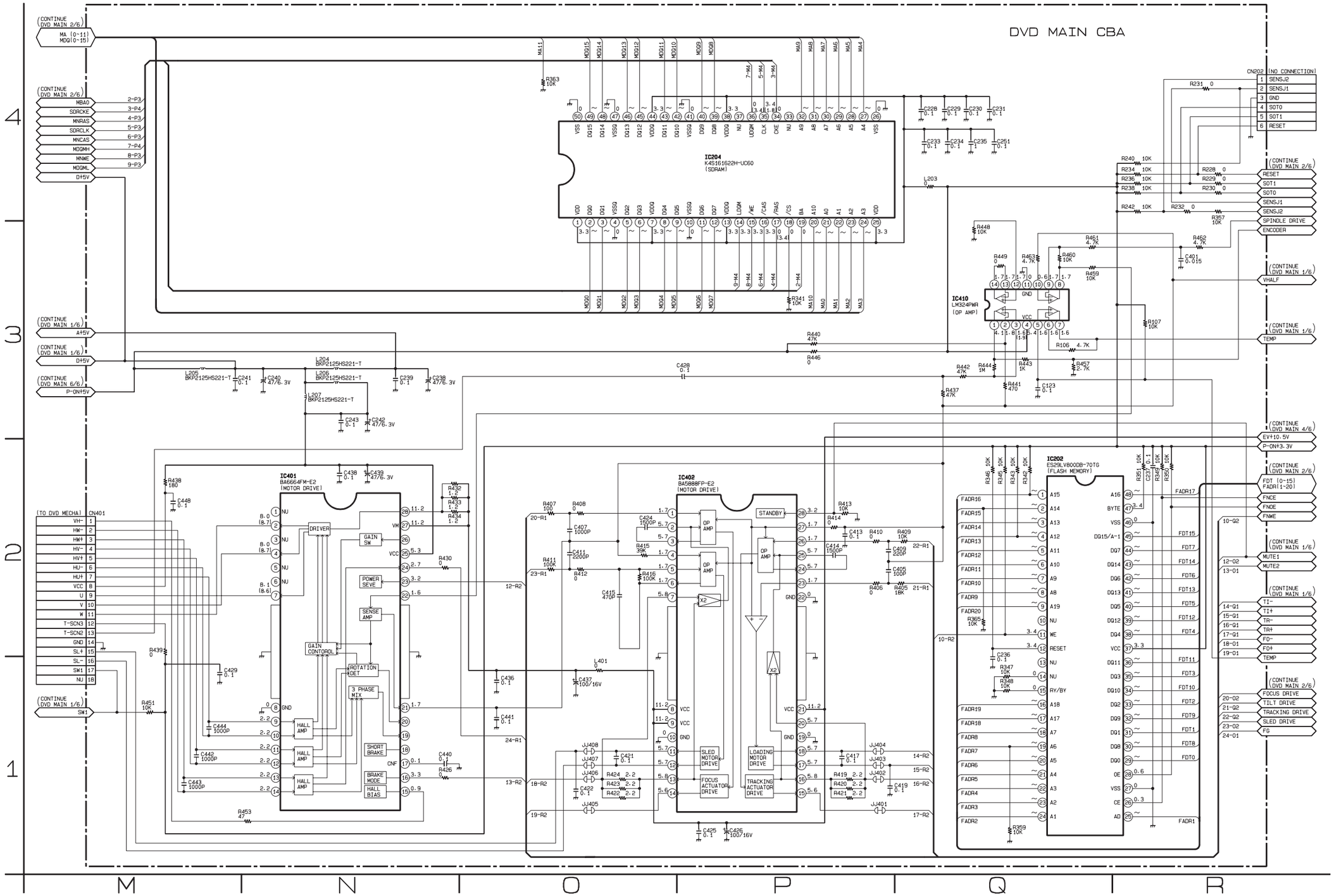
DVD MAIN 2/6

Ref No.	Position
IC	
IC201	H-4
CONNECTOR	
CN204	G-4

DVD Main 3/6 Schematic Diagram

DVD MAIN 3/6

Ref No.	Position
ICS	
IC202	Q-2
IC204	P-4
IC401	N-2
IC402	P-2
IC410	Q-3
CONNECTORS	
CN202	R-4
CN401	M-2

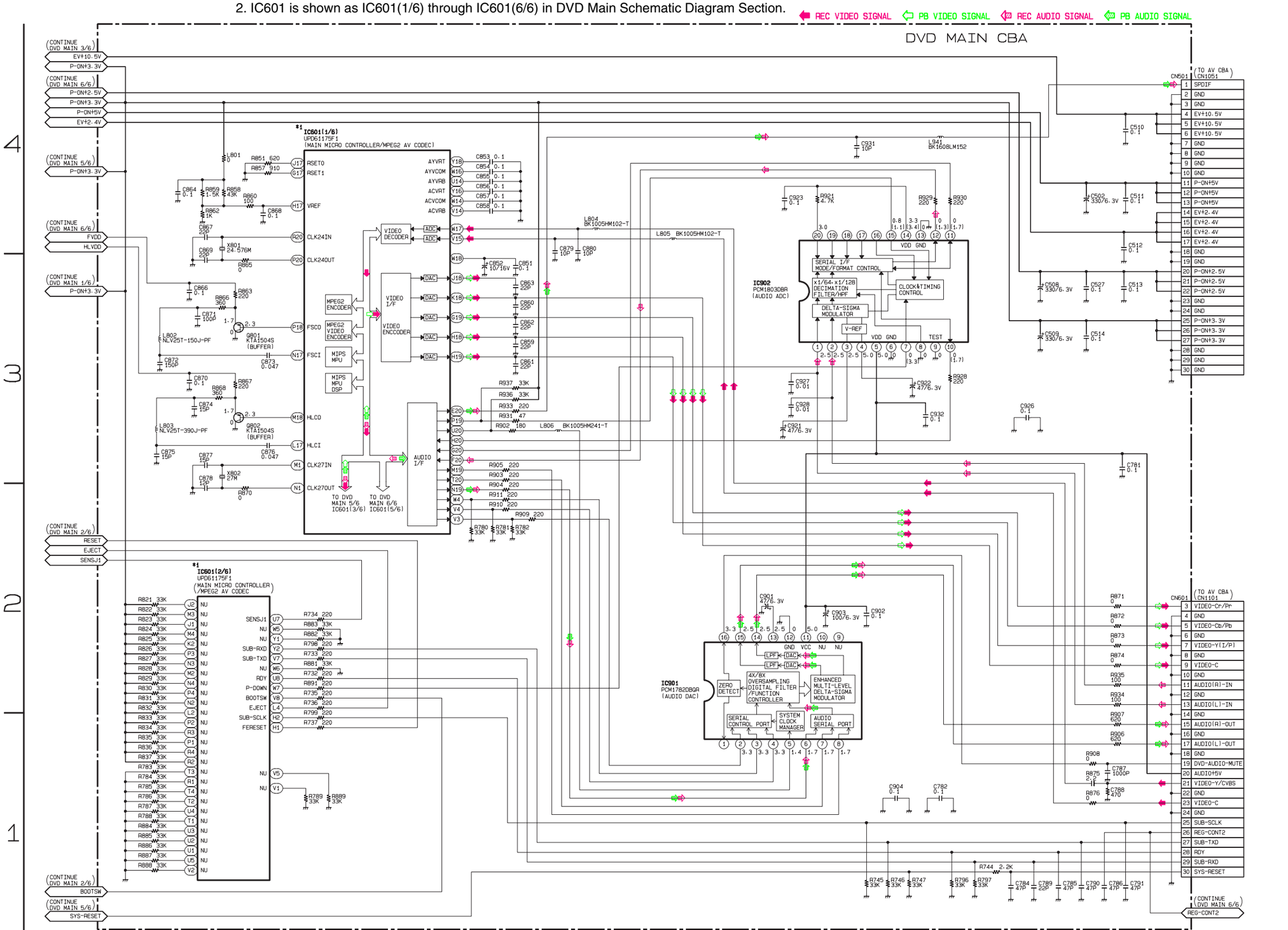


E6700SCD3

DVD Main 4/6 Schematic Diagram

NOTE:

1. The order of pins shown are different from that of IC601 itself.
2. IC601 is shown as IC601(1/6) through IC601(6/6) in DVD Main Schematic Diagram Section.



DVD MAIN 4/6

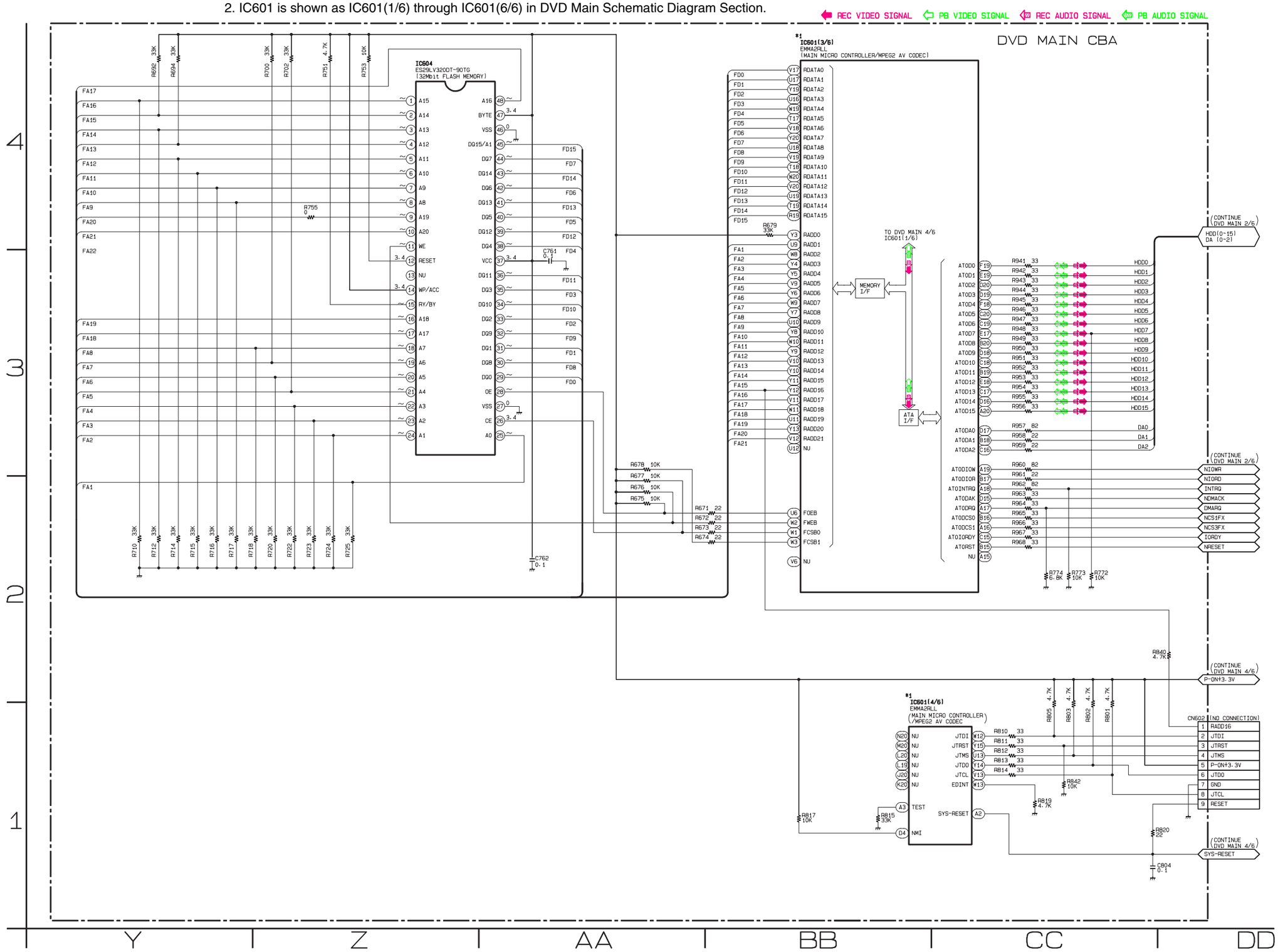
Ref No.	Position
ICS	
IC601(1/6)	T-4
IC601(2/6)	S-2
IC901	V-2
IC902	V-3
TRANSISTORS	
Q801	S-3
Q802	S-3
CONNECTORS	
CN501	X-4
CN601	X-2

E6700SCD4

DVD Main 5/6 Schematic Diagram

NOTE:

1. The order of pins shown are different from that of IC601 itself.
2. IC601 is shown as IC601(1/6) through IC601(6/6) in DVD Main Schematic Diagram Section.



DVD MAIN 5/6

Ref No.	Position
ICS	
IC601(3/6)	BB-4
IC601(4/6)	BB-1
IC604	Z-4
CONNECTOR	
CN602	DD-1

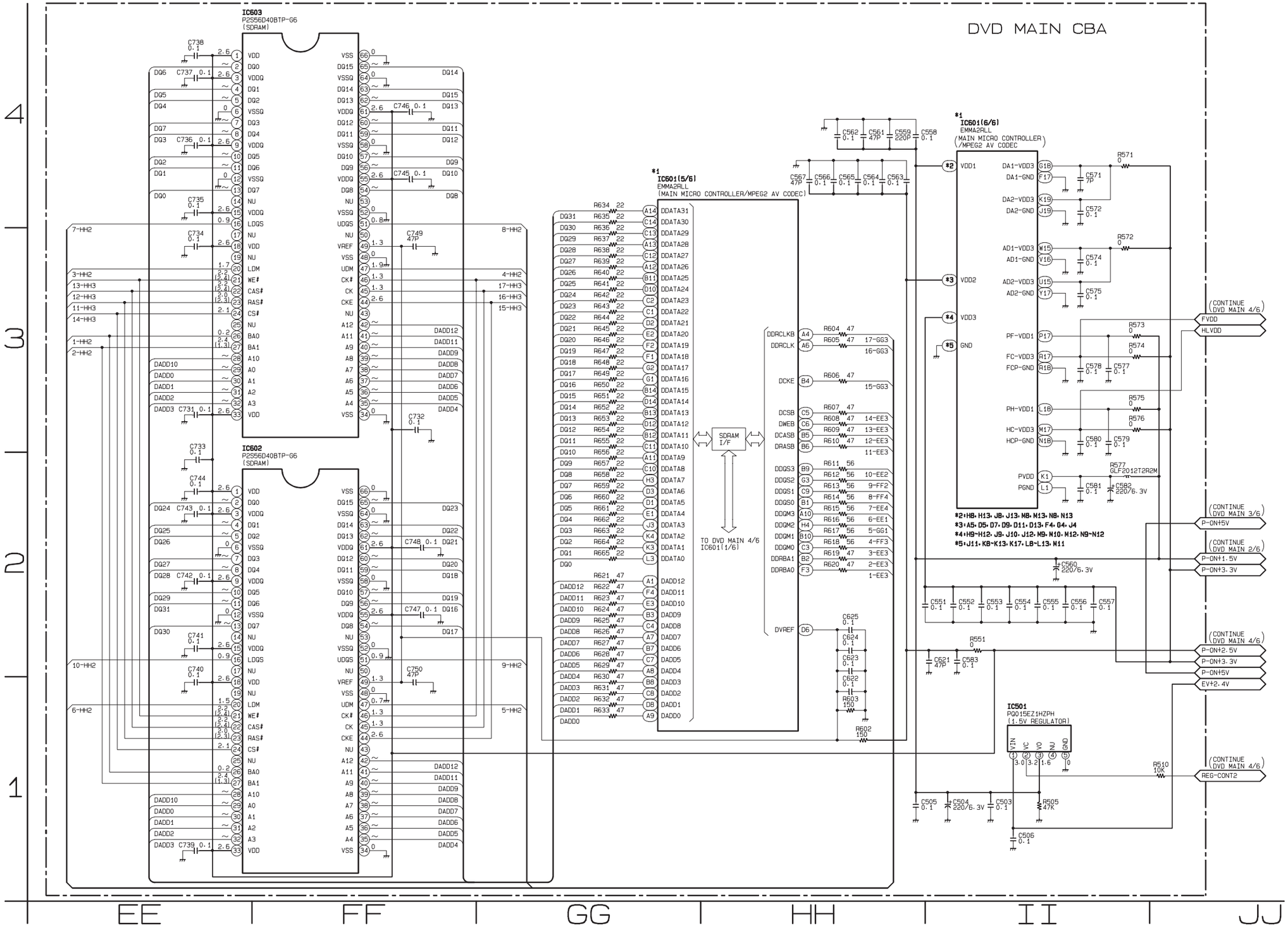
DVD Main 6/6 Schematic Diagram

NOTE:

1. The order of pins shown are different from that of IC601 itself.
2. IC601 is shown as IC601(1/6) through IC601(6/6) in DVD Main Schematic Diagram Section.

DVD MAIN 6/6

Ref No.	Position
ICS	
IC501	II-1
IC601(5/6)	GG-4
IC601(6/6)	II-4
IC602	FF-2
IC603	FF-4



E6700SCD6

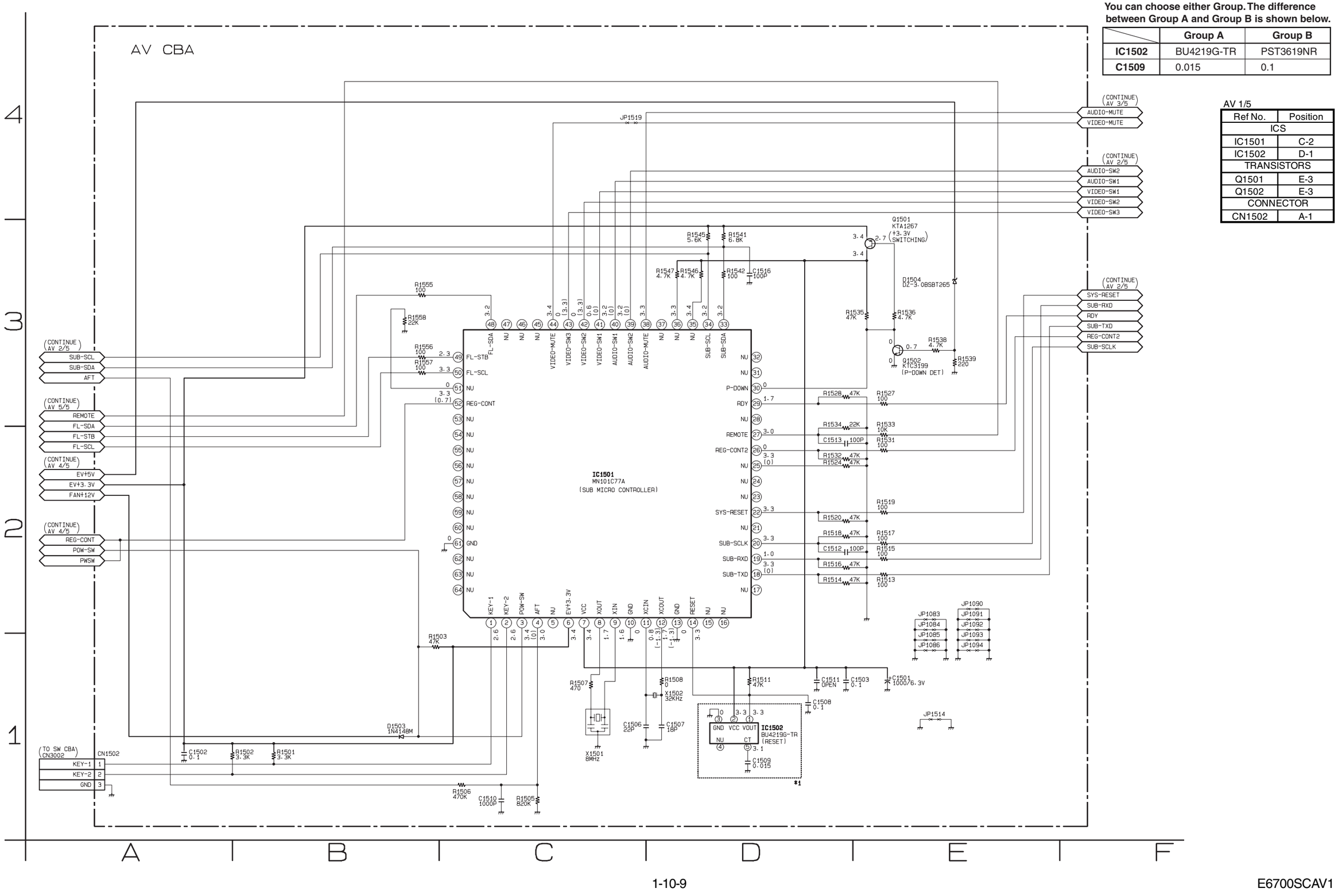
AV 1/5 Schematic Diagram

***1 NOTE**
These components (IC1502, C1509) can be used in any models. However, you cannot mix components under Group A with the ones under Group B. You can choose either Group. The difference between Group A and Group B is shown below.

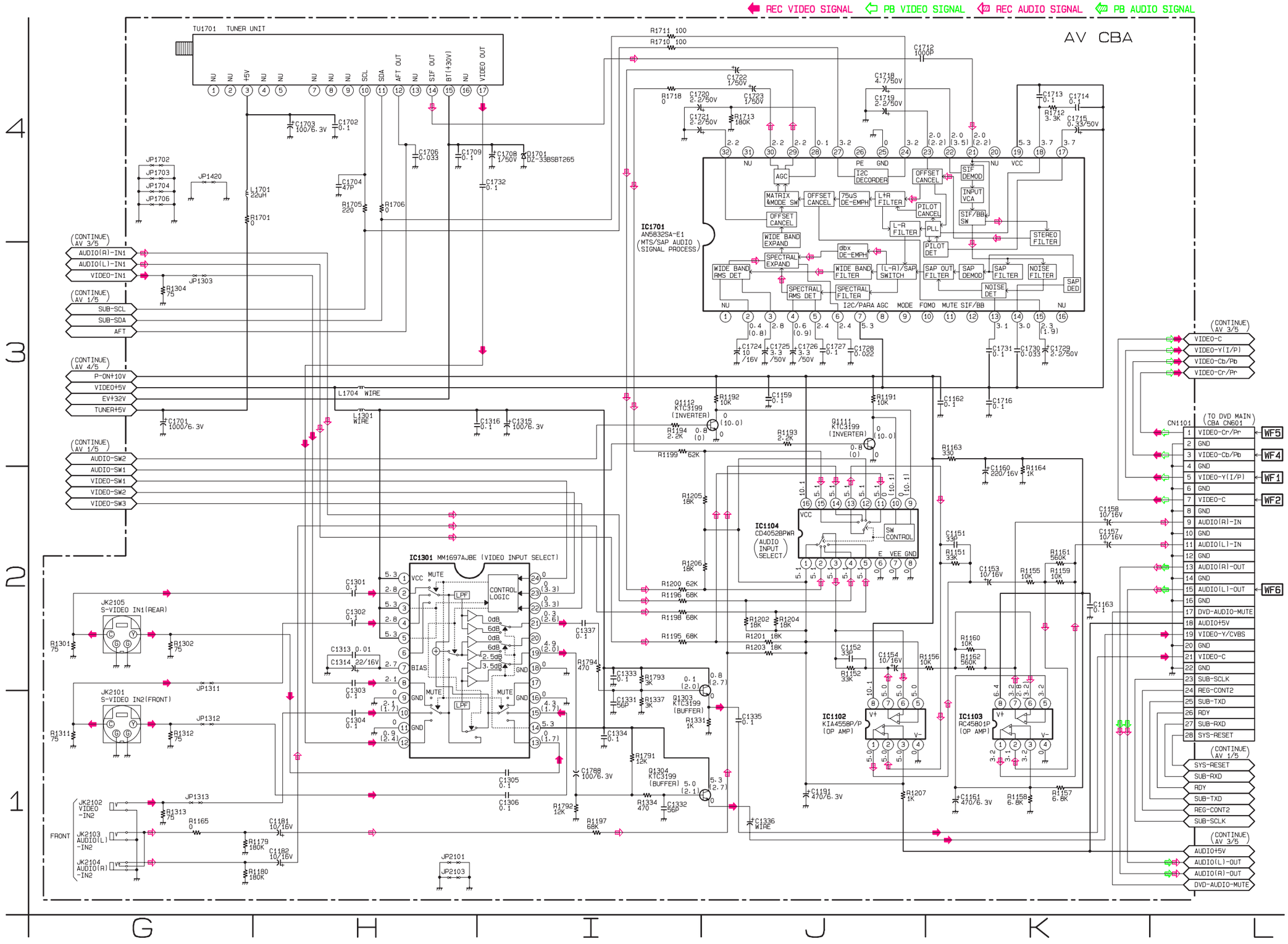
	Group A	Group B
IC1502	BU4219G-TR	PST3619NR
C1509	0.015	0.1

AV 1/5

Ref No.	Position
ICS	
IC1501	C-2
IC1502	D-1
TRANSISTORS	
Q1501	E-3
Q1502	E-3
CONNECTOR	
CN1502	A-1



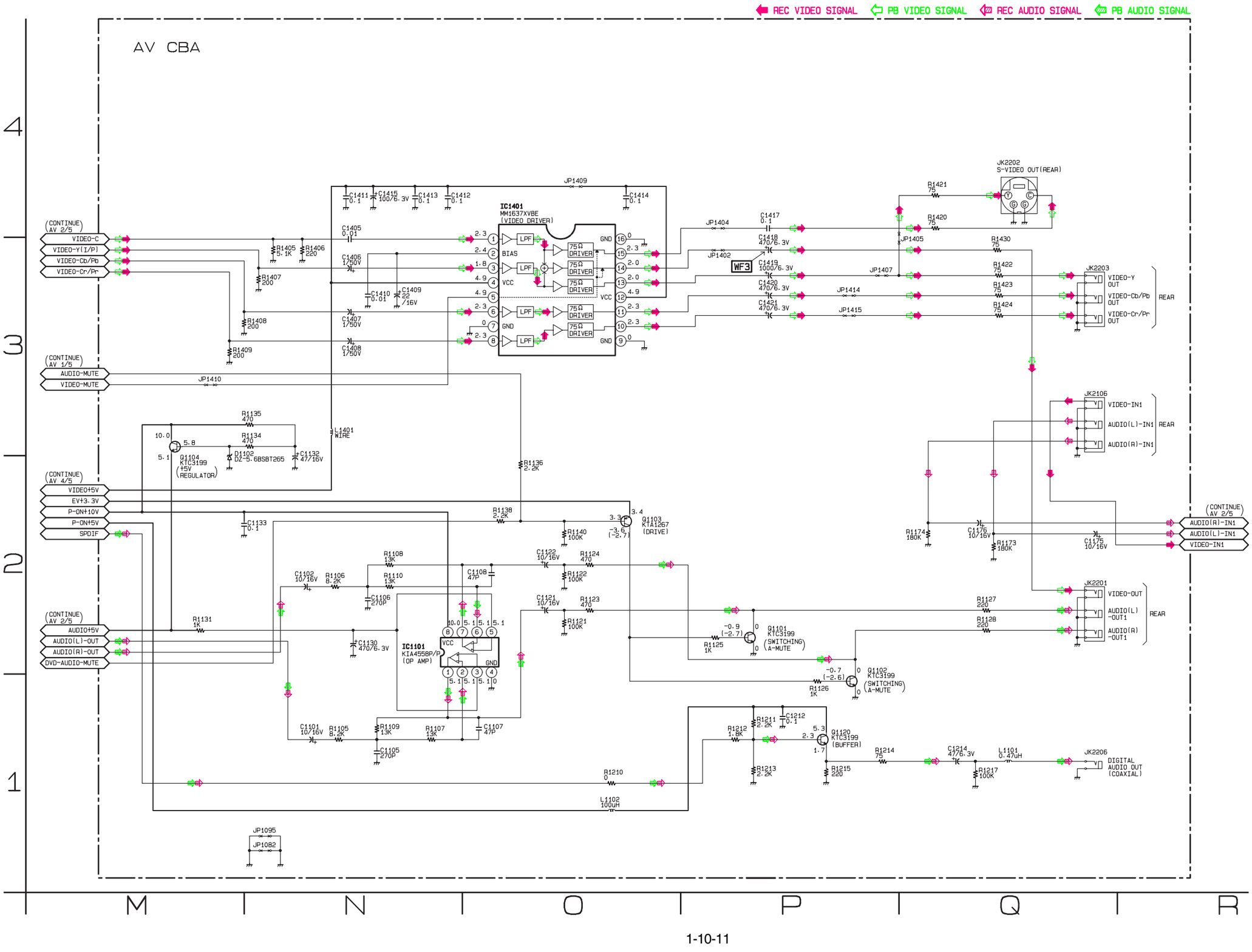
AV 2/5 Schematic Diagram



AV 2/5

Ref No.	Position
ICS	
IC1102	J-1
IC1103	K-1
IC1104	J-2
IC1301	H-2
IC1701	J-4
TRANSISTORS	
Q1111	J-3
Q1112	J-3
Q1303	J-1
Q1304	J-1
CONNECTOR	
CN1101	L-3

AV 3/5 Schematic Diagram



AV 3/5

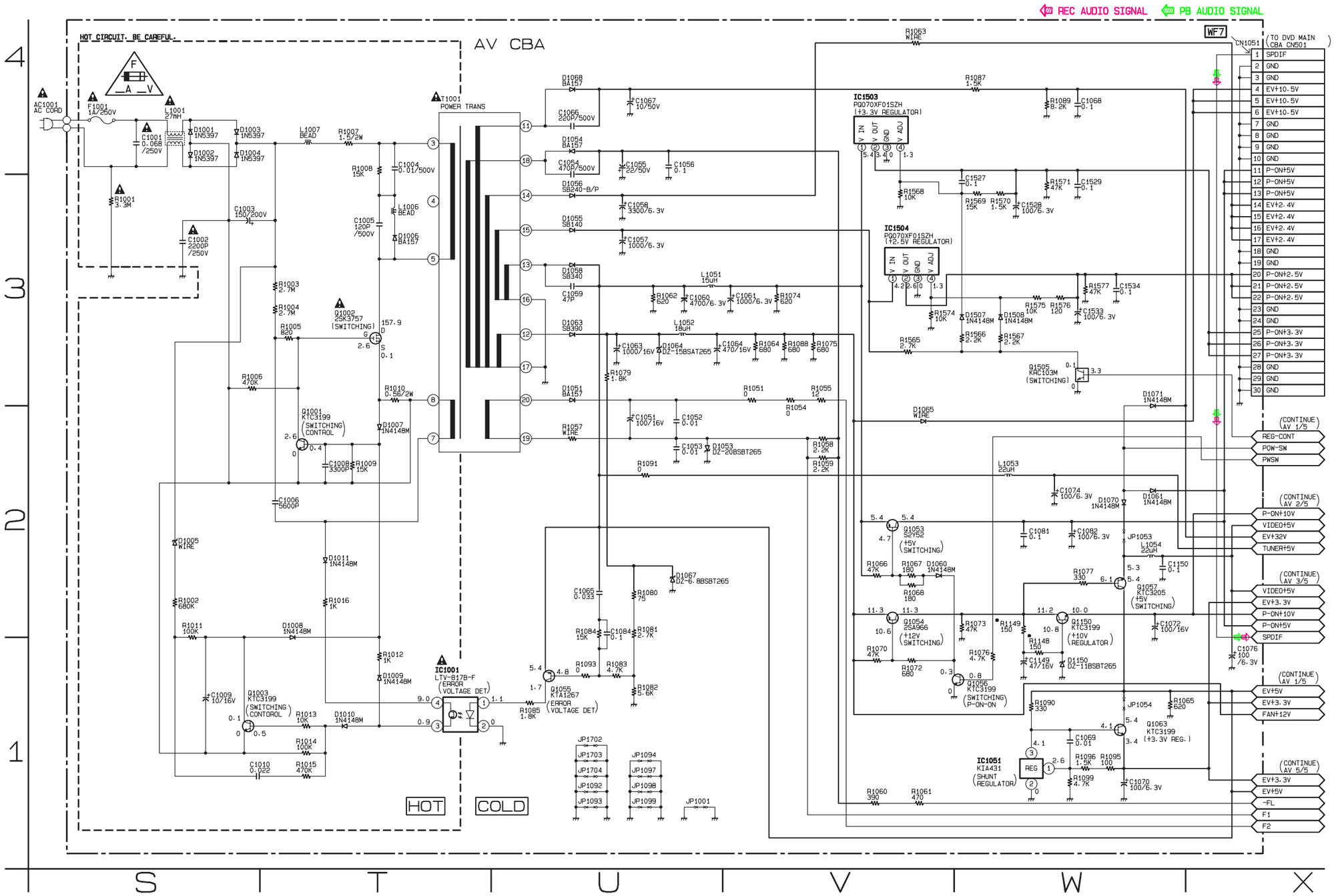
Ref No.	Position
ICS	
IC1101	N-2
IC1401	O-4
TRANSISTORS	
Q1101	P-2
Q1102	P-1
Q1103	O-2
Q1104	M-3
Q1120	P-1

AV 4/5 Schematic Diagram

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F1001) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

CAUTION !
For continued protection against fire hazard,
replace only with the same type fuse.
ATTENTION : Pour une protection continue les risqes
d'Incele n'utiliser que des fusible de même type.
Risk of fire-replace fuse as marked.
"This symbol means fast operating fuse."
"Ce symbole représente un fusible à fusion rapide."

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



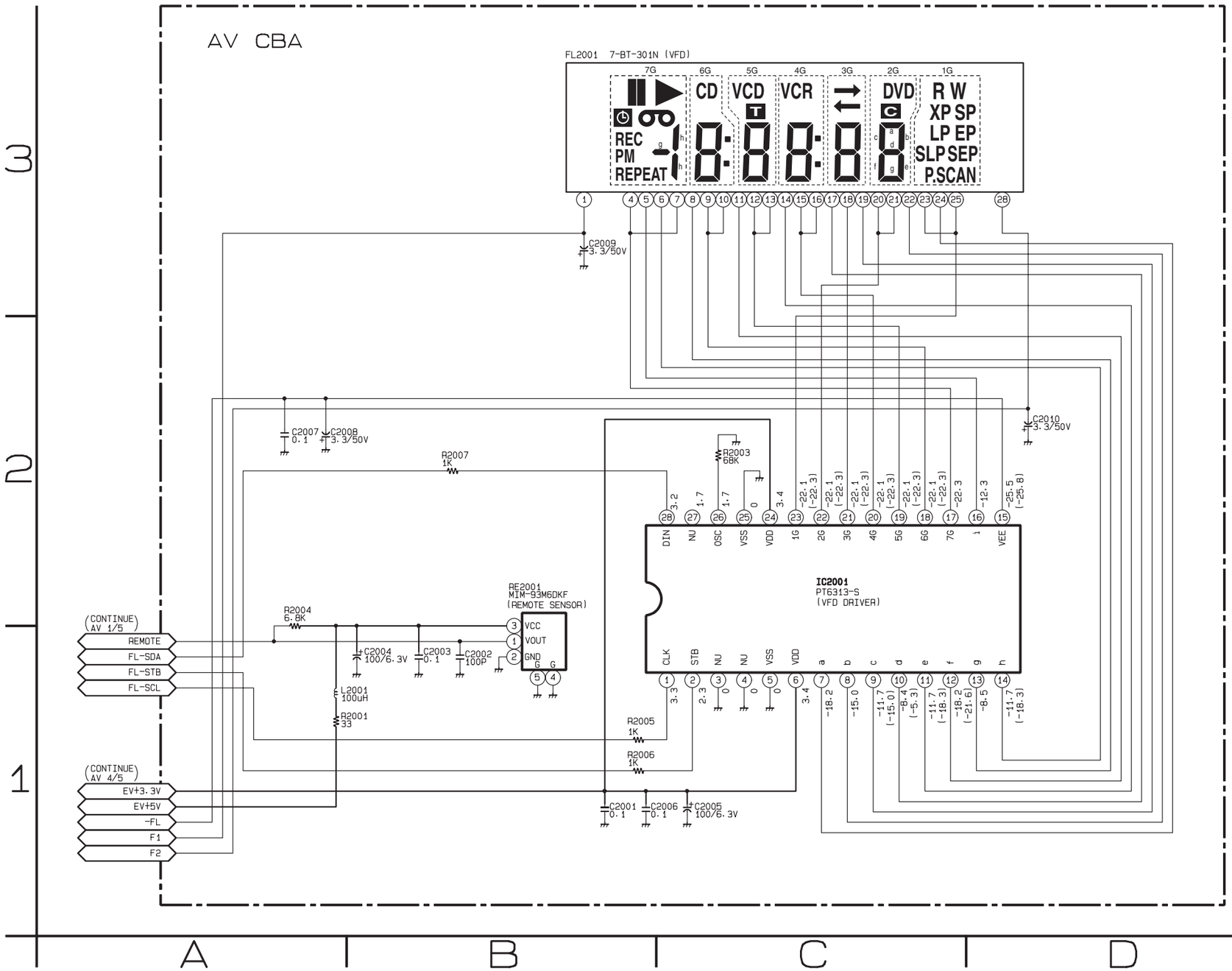
AV 4/5

Ref No.	Position
ICS	
IC1001	T-1
IC1051	W-1
IC1503	V-4
IC1504	V-3
TRANSISTORS	
Q1001	T-2
Q1002	T-3
Q1003	S-1
Q1053	V-2
Q1054	V-2
Q1055	U-1
Q1056	W-1
Q1057	W-2
Q1063	W-1
Q1150	W-2
Q1505	W-3
CONNECTOR	
CN1051	X-4

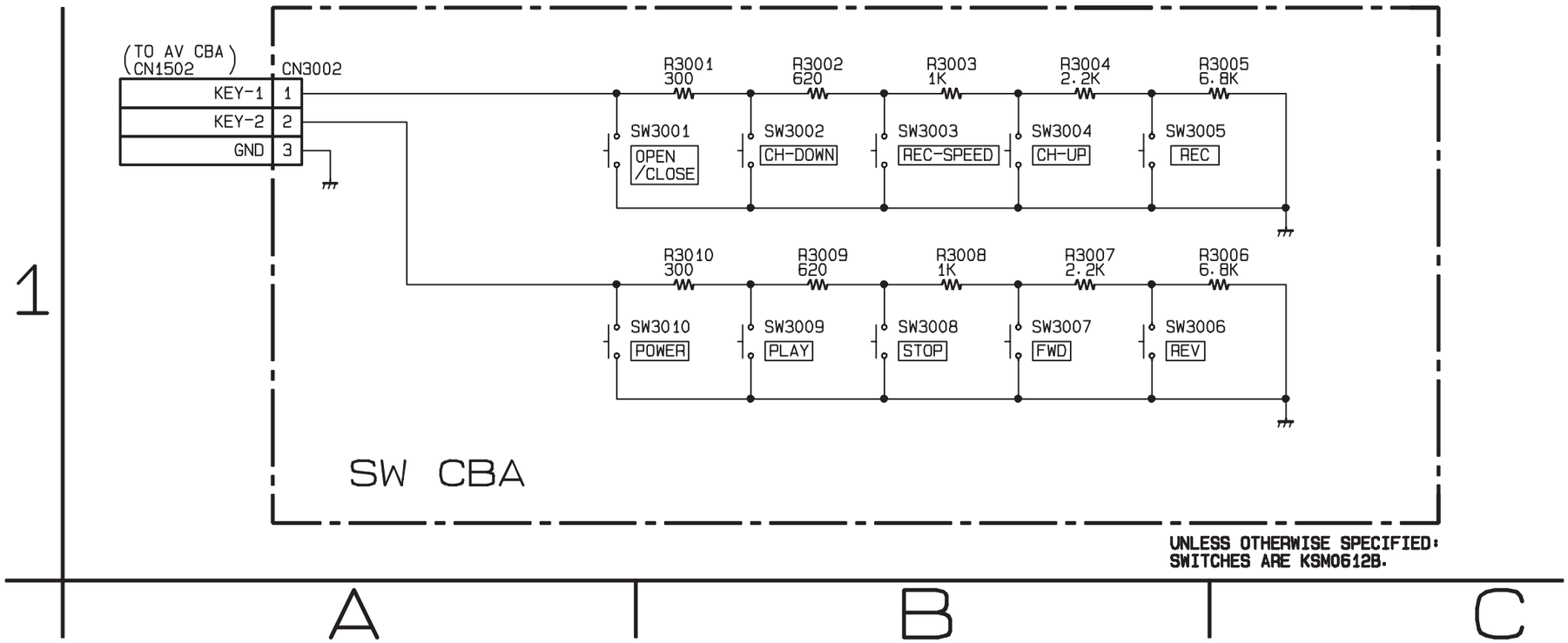
AV 5/5 Schematic Diagram

FL2001 MATRIX CHART

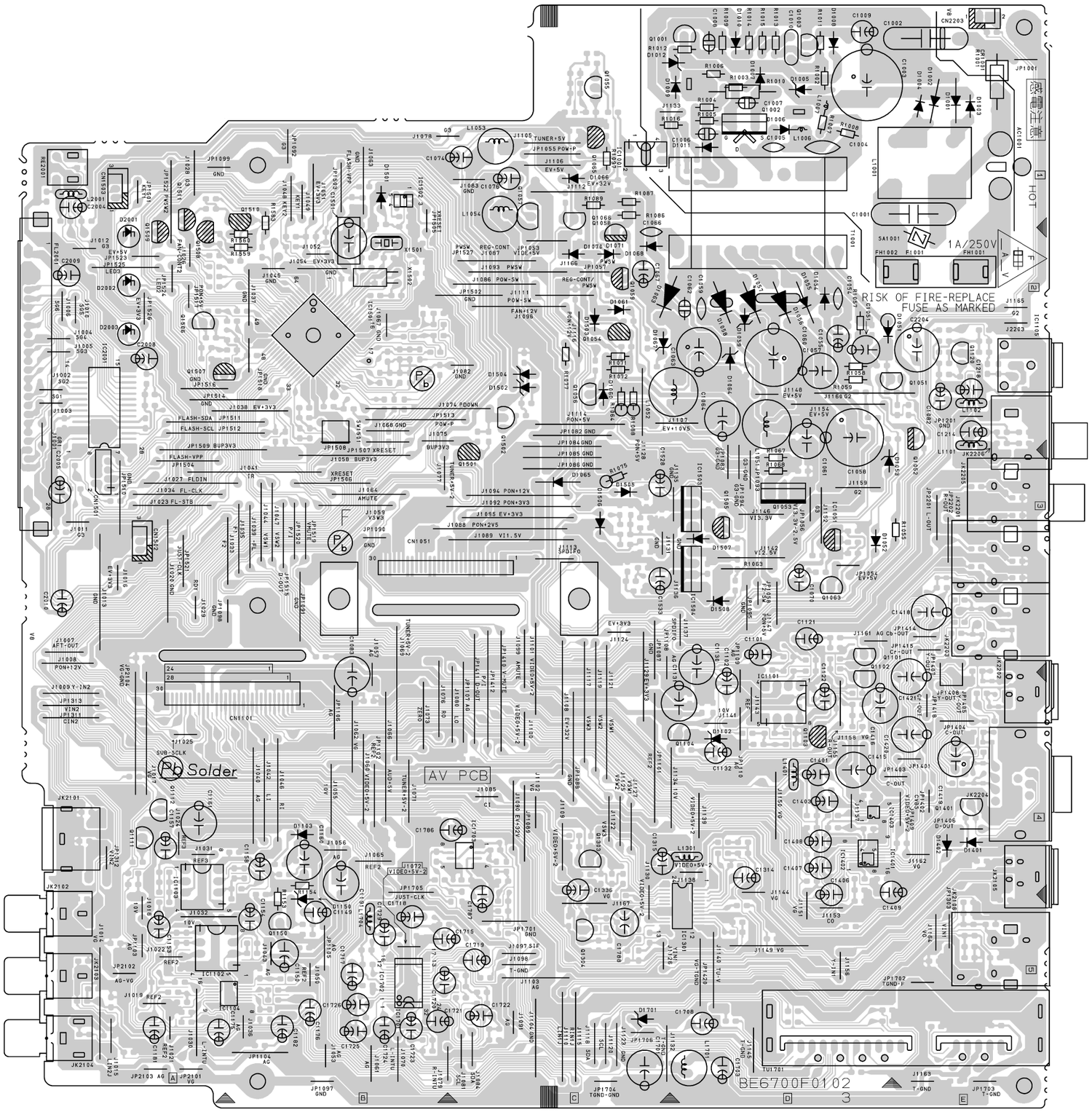
	7G	6G	5G	4G	3G	2G	1G
a	▶	a	a	a	a	a	XP
b	▮▮	b	b	b	b	b	SP
c	◷	c	c	c	c	c	LP
d	∞	d	d	d	d	d	EP
e	REC	e	e	e	e	e	SLP
f	PM	f	f	f	f	f	SEP
g	g	g	g	g	g	g	P.SCAN
h	h	:	T	:	→	C	W
i	REPEAT	CD	VCD	VCR	←	DVD	R



SW Schematic Diagram



AV CBA Top View



CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F1001) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

CAUTION !
For continued protection against fire hazard,
replace only with the same type fuse.
ATTENTION : Pour une protection continue les risqes d'Incele n'utiliser que des fusible de même type.
Risk of fire-replace fuse as marked.
"This symbol means fast operating fuse."
"Ce symbole représente un fusible à fusion rapide."

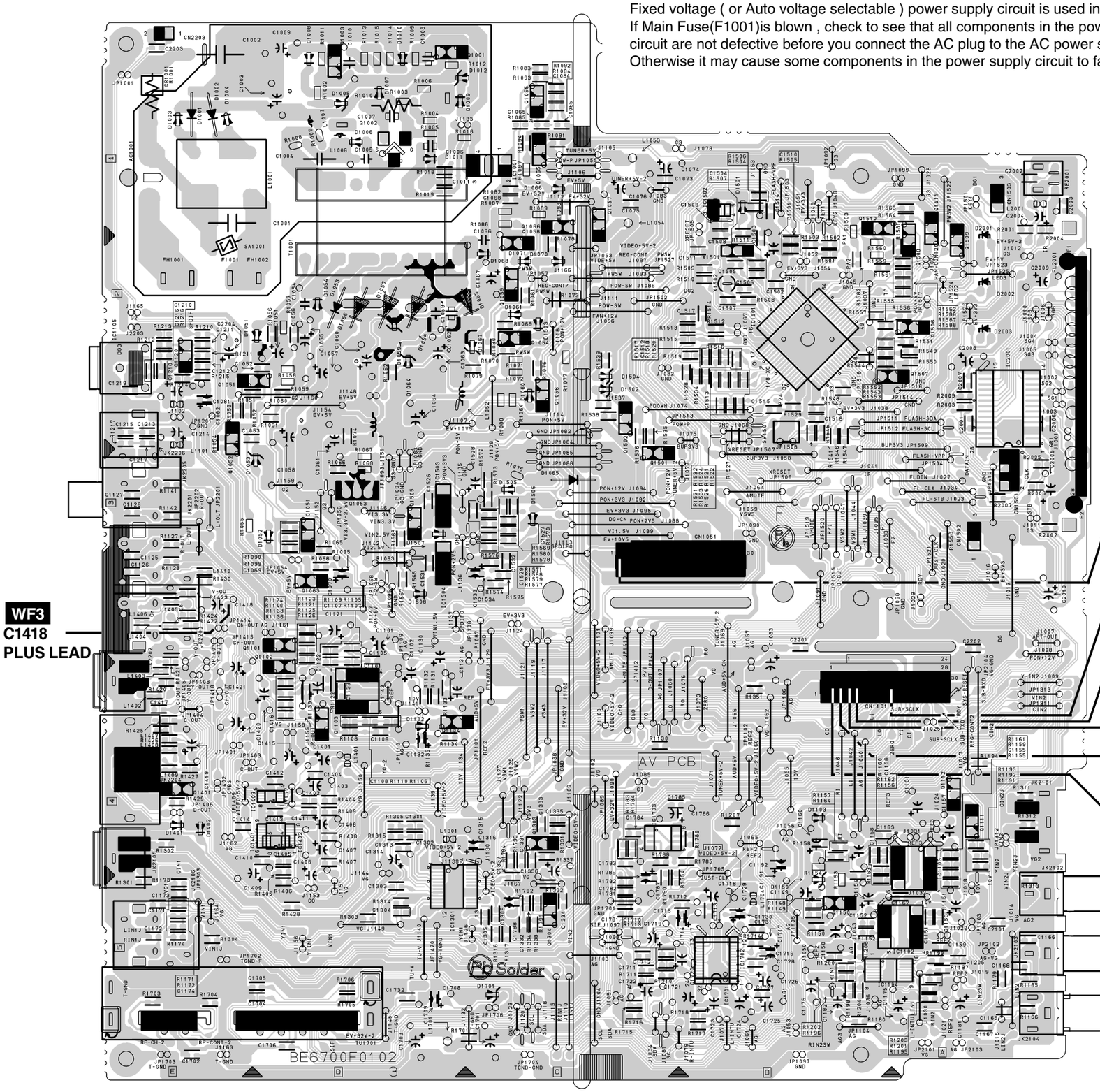
NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

AV CBA Bottom View

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse(F1001)is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

CAUTION !
For continued protection against fire hazard,
replace only with the same type fuse.
ATTENTION : Pour une protection continue les risqes d'Incele n'utiliser que des fusible de même type.
Risk of fire-replace fuse as marked.
"This symbol means fast operating fuse."
"Ce symbole reprèsente un fusible à fusion rapide."

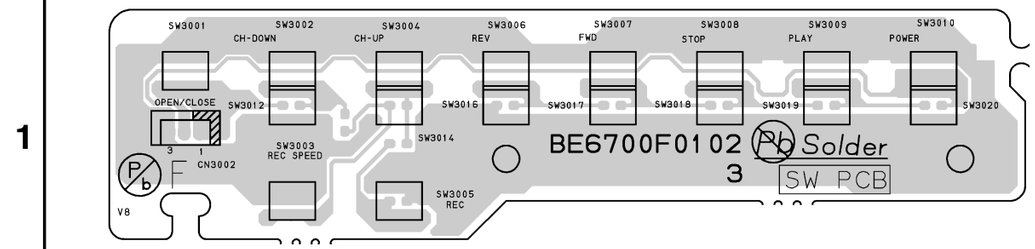
NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



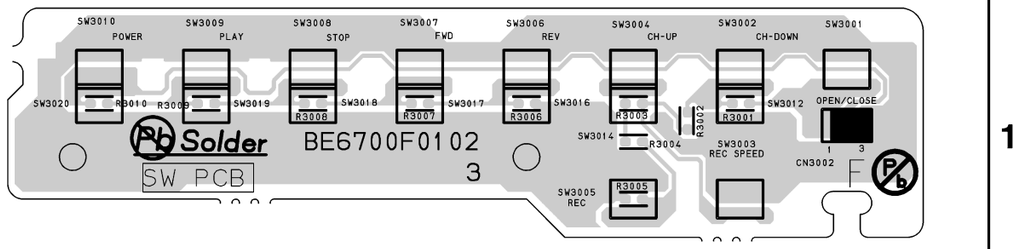
AV CBA

Ref No.	Position
ICS	
IC1001	C-1
IC1051	D-3
IC1101	D-4
IC1102	A-5
IC1103	A-4
IC1104	B-5
IC1301	D-5
IC1401	D-4
IC1501	B-2
IC1502	B-1
IC1503	D-3
IC1504	D-3
IC1701	B-5
IC2001	A-2
TRANSISTORS	
Q1001	C-1
Q1002	D-1
Q1003	D-1
Q1053	D-3
Q1054	C-2
Q1055	C-1
Q1056	C-2
Q1057	C-1
Q1063	D-3
Q1101	D-3
Q1102	D-3
Q1103	D-4
Q1104	D-4
Q1111	A-4
Q1112	A-4
Q1120	E-2
Q1150	B-5
Q1303	C-4
Q1304	C-5
Q1501	C-3
Q1502	C-2
Q1505	D-3
CONNECTORS	
CN1051	B-3
CN1101	B-4
CN1502	A-3

SW CBA Top View

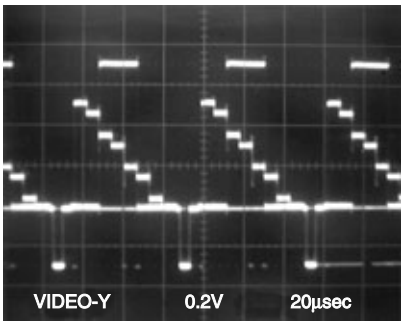


SW CBA Bottom View

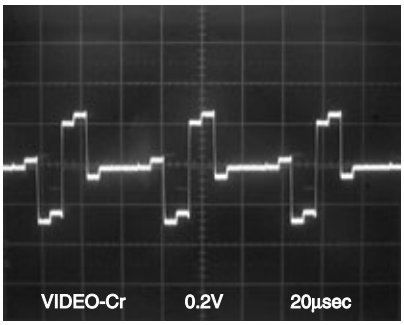


WAVEFORMS

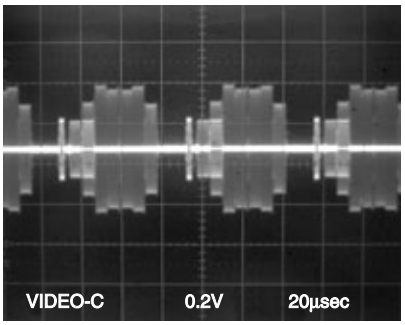
WF1 Pin 5 of CN1101



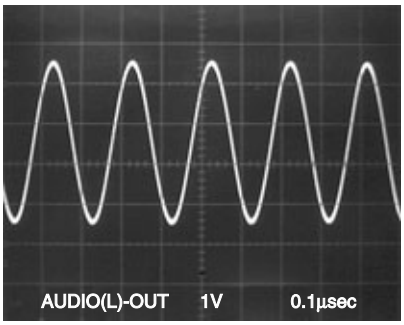
WF5 Pin 1 of CN1101



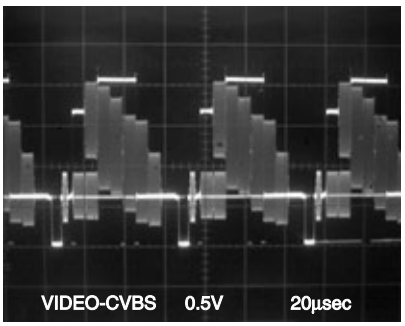
WF2 Pin 7 of CN1101



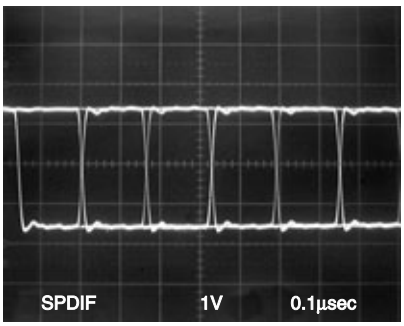
WF6 Pin 15 of CN1101



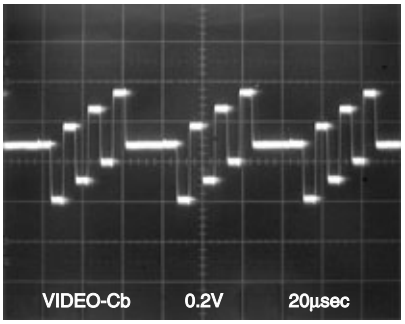
WF3 C1418 PLUS LEAD



WF7 Pin 1 of CN1051

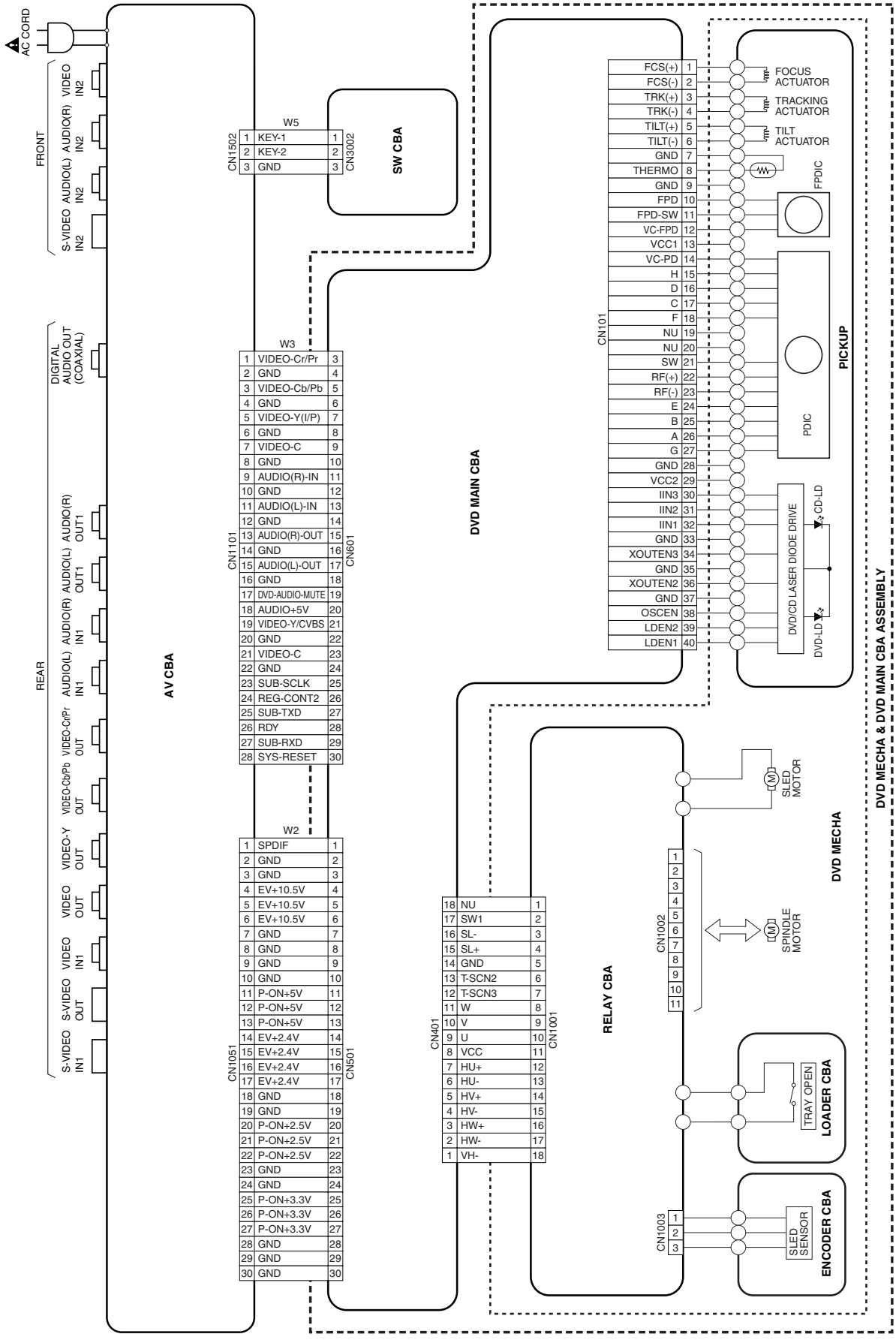


WF4 Pin 3 of CN1101

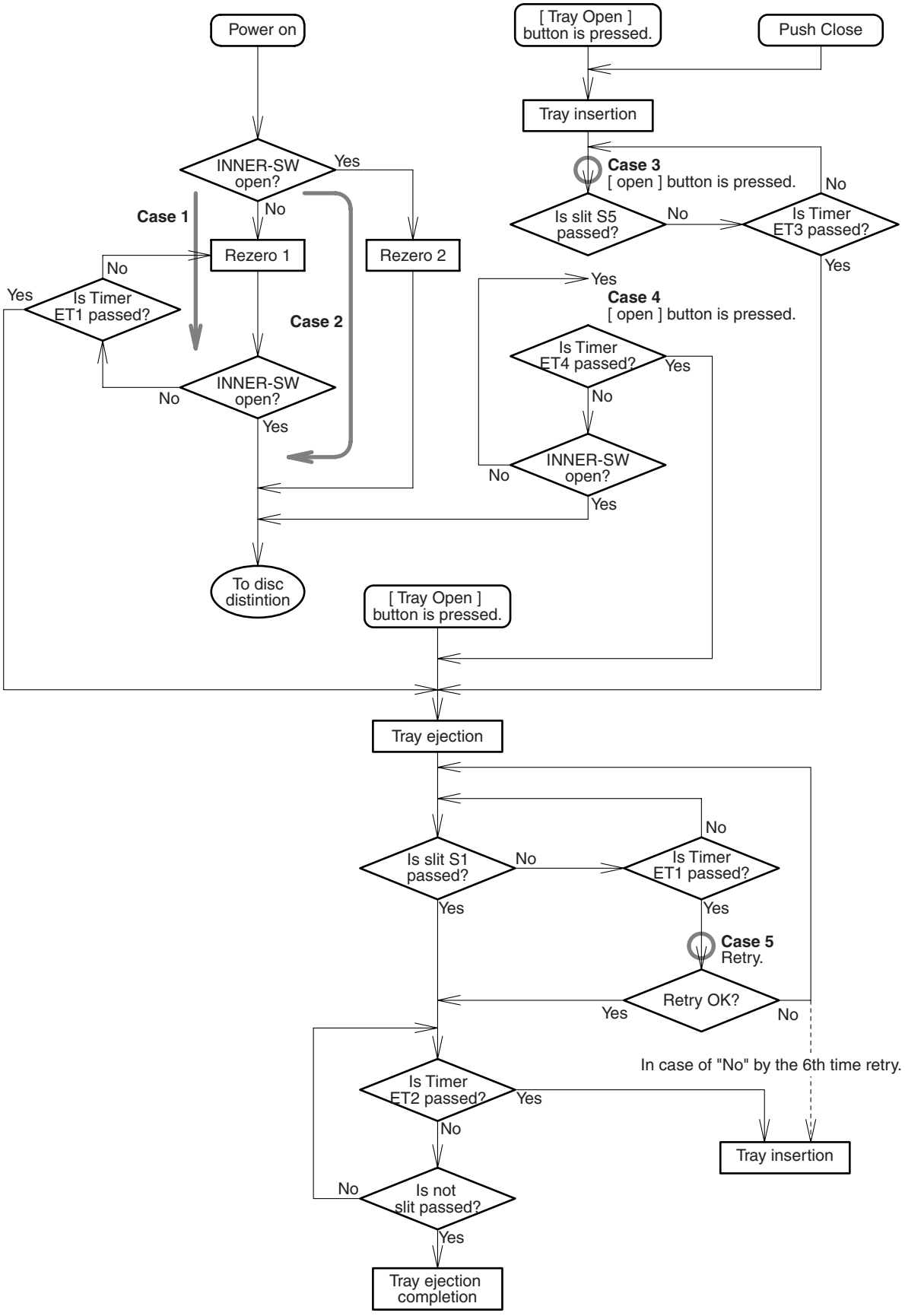


NOTE:
Input: COLOR BAR SIGNAL
(WITH 1KHz AUDIO SIGNAL)

WIRING DIAGRAM



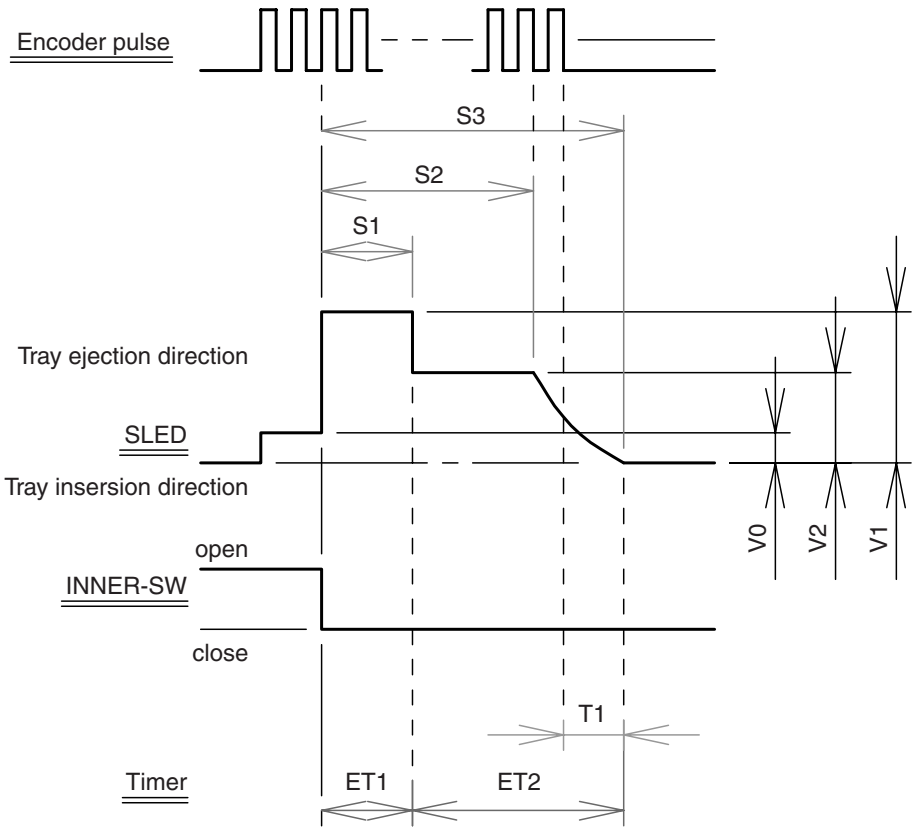
SYSTEM CONTROL TIMING CHARTS



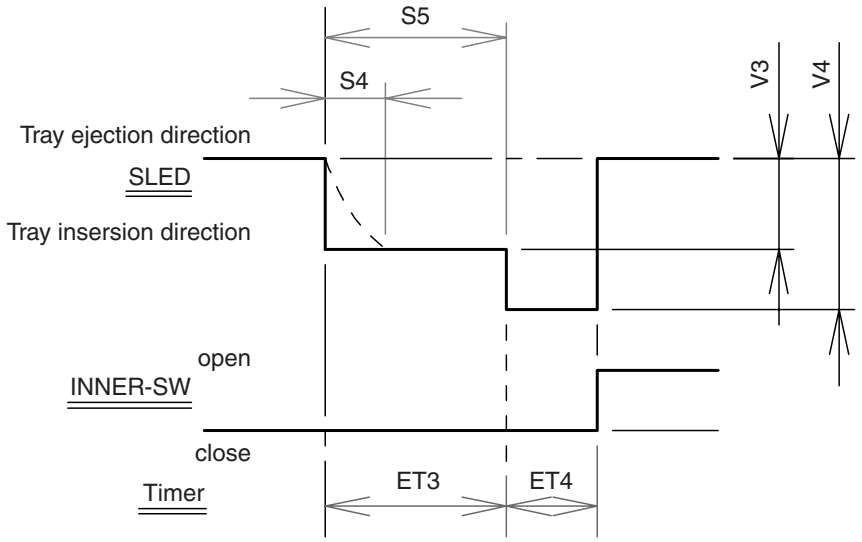
Parameter

V*: Voltage (HEX)	S*: Encoder pulse (HEX)	T*: Event timer	ET*: Error detection timer
V0: 2.0 V (00d)	S1: 300 (12c)	T1: 0.1 s	ET1: 5.0 s
V1: 4.5 V (022)	S2: 3300 (ce4)	T2: 3.0 s	ET2: 5.0 s
V2: 2.2 V (010)	S3: 3935 (f5f)	T3: 3.0 s	ET3: 3.0 s
V3: 2.4 V (013)	S4: 0 (000)	T4: 0.1 s	ET4: 3.0 s
V4: 6.0 V (030)	S5: 3000 (bb8)	T5: 0.1 s	

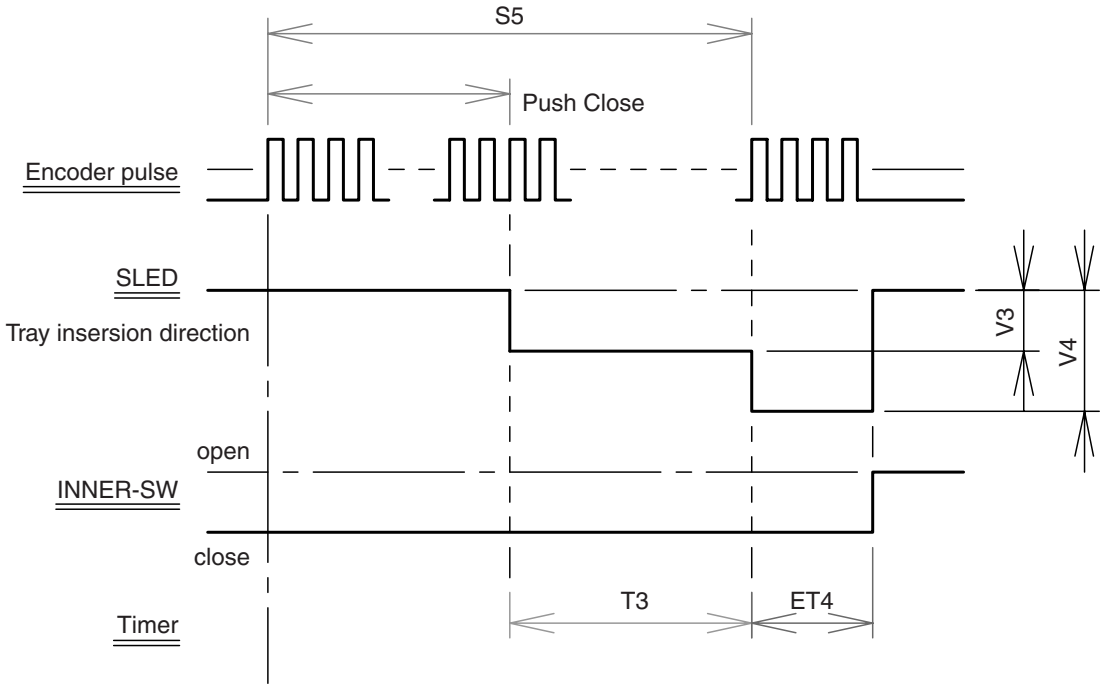
Tray open



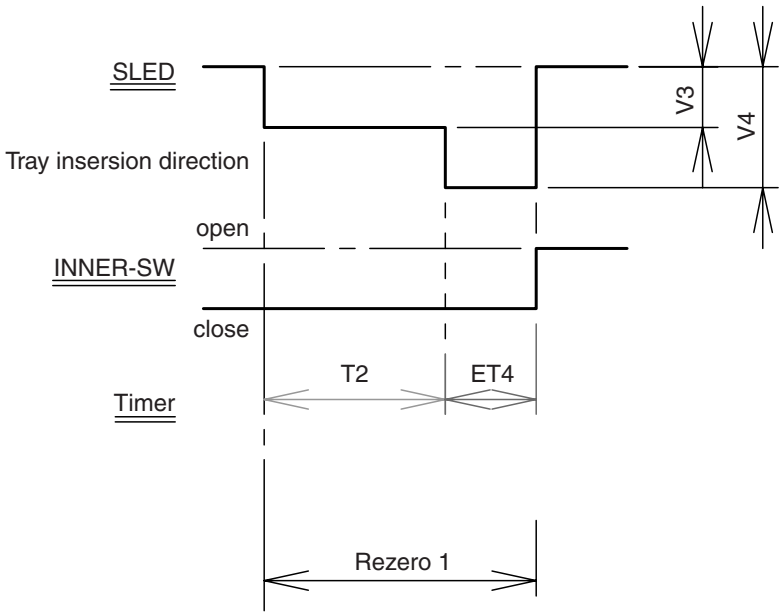
Tray close



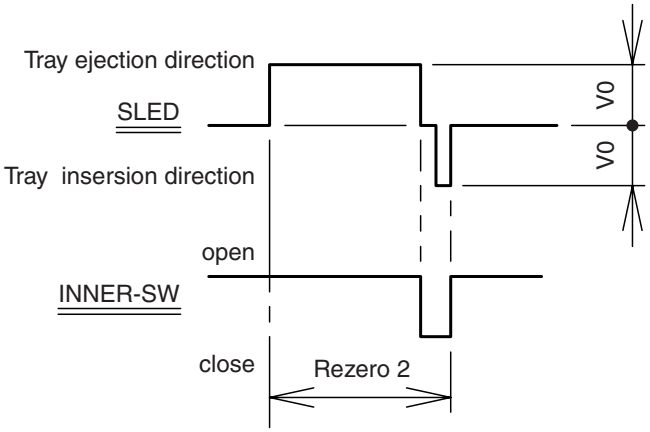
Push close



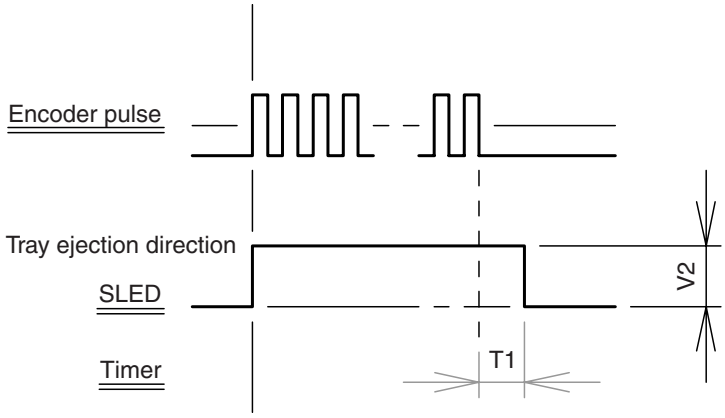
Case 1



Case 2



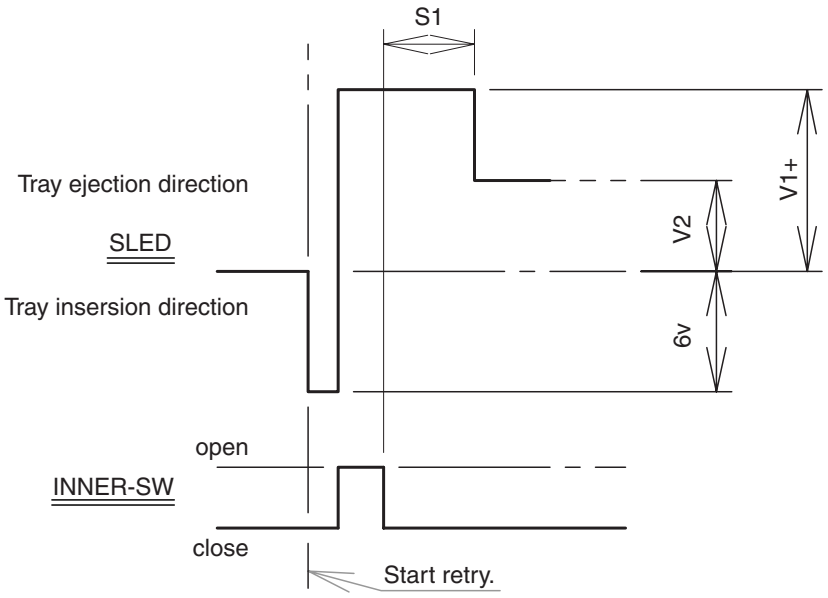
Case 3 (When [OPEN] button is pressed before the S5 passage.)



Case 4 (When [OPEN] button is pressed after the S5 passage.)

It starts opening after making closing complete once.

Case 5 (Retry.)



Retry frequency	V1+
1st time retry	6 v
2nd time retry	7 v
3rd time retry	8 v
4th time retry	9 v
5th time retry	9 v
6th time retry	9 v

IC PIN FUNCTION DESCRIPTIONS

IC1501 (SUB MICRO CONTROLLER)

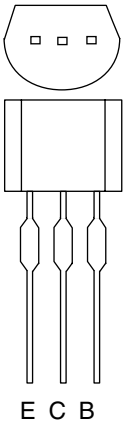
Pin No.	IN/ OUT	Signal Name	Function
1	IN	KEY-1	Key Data Input 1
2	IN	KEY-2	Key Data Input 2
3	IN	POW-SW	Abnormal Voltage Detection
4	IN	AFT	Tuner Voltage Input Signal
5	-	N.U.	Not Used
6	IN	EV+3.3V	+3.3V Power Supply
7	IN	VCC	+3.3V Power Supply
8	OUT	XOUT	Main Clock Output
9	IN	XIN	Main Clock Input
10	-	GND	Ground
11	IN	XCIN	Sub Clock Input
12	OUT	XCOUT	Sub Clock Output
13	-	GND	Ground
14	IN	RESET	Micro Controller Reset Signal
15	-	N.U.	Not Used
16	-	N.U.	Not Used
17	-	N.U.	Not Used
18	OUT	SUB-TXD	Transmission Data to Main Micro Controller
19	IN	SUB-RXD	Reception Data from Main Micro Controller
20	OUT	SUB-SCLK	Communication Clock with Main Micro Controller
21	-	N.U.	Not Used
22	OUT	SYS-RESET	System Reset Signal
23	-	N.U.	Not Used
24	-	N.U.	Not Used
25	-	N.U.	Not Used
26	OUT	REG-CONT2	Power Regurator Control Signal
27	IN	REMOTE	Remote Signal Input
28	-	N.U.	Not Used
29	IN	RDY	Ready/Busy communication Control with Main Micro Controller
30	IN	P-DOWN	Power Voltage Down Detector Signal
31	-	N.U.	Not Used
32	-	N.U.	Not Used
33	IN/ OUT	SUB-SDA	Serial Data
34	OUT	SUB-SCL	Serial Clock
35	-	N.U.	Not Used
36	-	N.U.	Not Used
37	-	N.U.	Not Used
38	OUT	AUDIO-MUTE	Audio Mute Control Signal
39	OUT	AUDIO-SW2	Audio Input Select Signal
40	OUT	AUDIO-SW1	Audio Input Select Signal
41	OUT	VIDEO-SW1	Video Input Select Signal
42	OUT	VIDEO-SW2	Video Input Select Signal
43	OUT	VIDEO-SW3	Video Input Select Signal
44	OUT	VIDEO-MUTE	Video Mute Control Signal
45	-	N.U.	Not Used
46	-	N.U.	Not Used
47	-	N.U.	Not Used
48	OUT	FL-SDA	Serial Data
49	OUT	FL-STB	Serial Interface Strobe
50	OUT	FL-SCL	Serial Clock
51	-	N.U.	Not Used
52	OUT	REG-CONT	Power Regurator Control Signal
53	-	N.U.	Not Used
54	-	N.U.	Not Used
55	-	N.U.	Not Used
56	-	N.U.	Not Used
57	-	N.U.	Not Used
58	-	N.U.	Not Used
59	-	N.U.	Not Used
60	-	N.U.	Not Used
61	-	GND	Ground
62	-	N.U.	Not Used
63	-	N.U.	Not Used
64	-	N.U.	Not Used

IC2001 (FIP DRIVER)

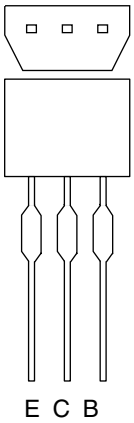
Pin No.	IN/ OUT	Signal Name	Function
1	IN	CLK	Serial Clock
2	IN	STB	Serial Interface Strobe
3	-	N.U.	Not Used
4	-	N.U.	Not Used
5	-	VSS	GND
6	-	VDD	Power Supply
7	OUT	a	Segment Output
8		b	
9		c	
10		d	
11		e	
12		f	
13		g	
14		h	
15	-	VEE	Pull Down Level
16	OUT	i	Segment Output
17	OUT	7G	Grid Output
18		6G	
19		5G	
20		4G	
21		3G	
22		2G	
23		1G	
24	-	VDD	Power Supply
25	-	VSS	GND
26	IN	OSC	Oscillator Input
27	-	N.U.	Not Used
28	IN	DIN	Serial Data Input

LEAD IDENTIFICATIONS

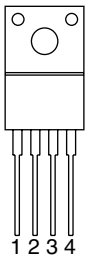
KTC3205-Y-AT/P
2SA966(Y)



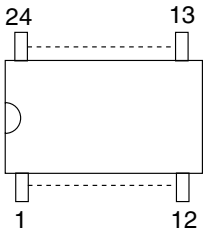
KTC3199-GR-AT/P
KTA1267Y-AT/P
KRC103M



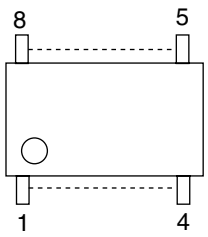
PQ070XF01SZH



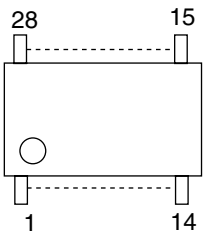
MM1697AJBE



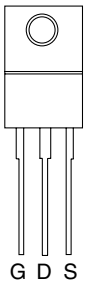
KIA4558P/P



PT6313-S-TP



2SK3757(Q)



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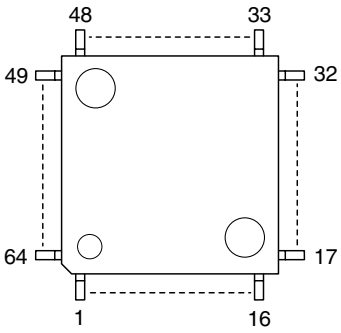
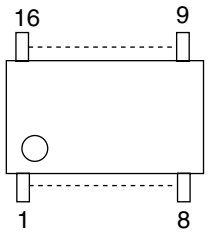
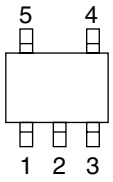


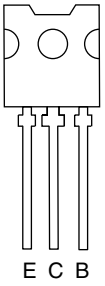
CD4052BPWR



BU4219G-TR
PST3619NR

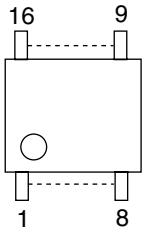


S2Y52

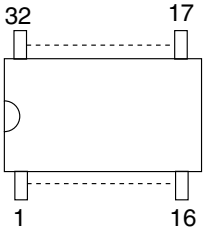


LTV-817B-F

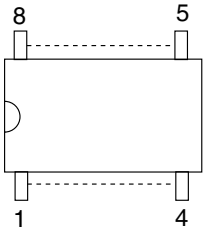
MM1637XVBE



AN5832SA-E1



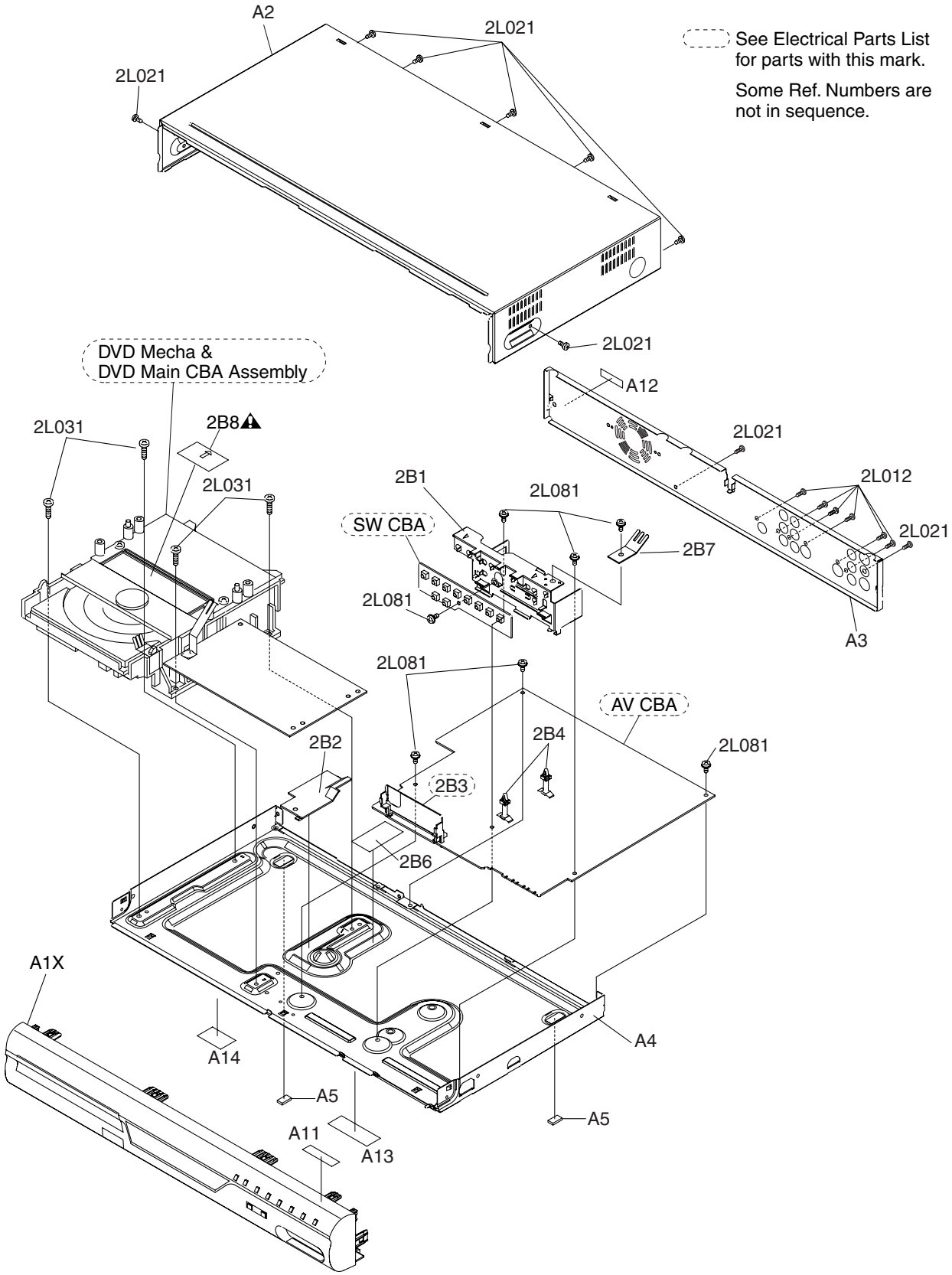
RC4580IP



Note:
A: Anode
K: Cathode
E: Emitter
C: Collector
B: Base
R: Reference
G: Gate
D: Drain
S: Source

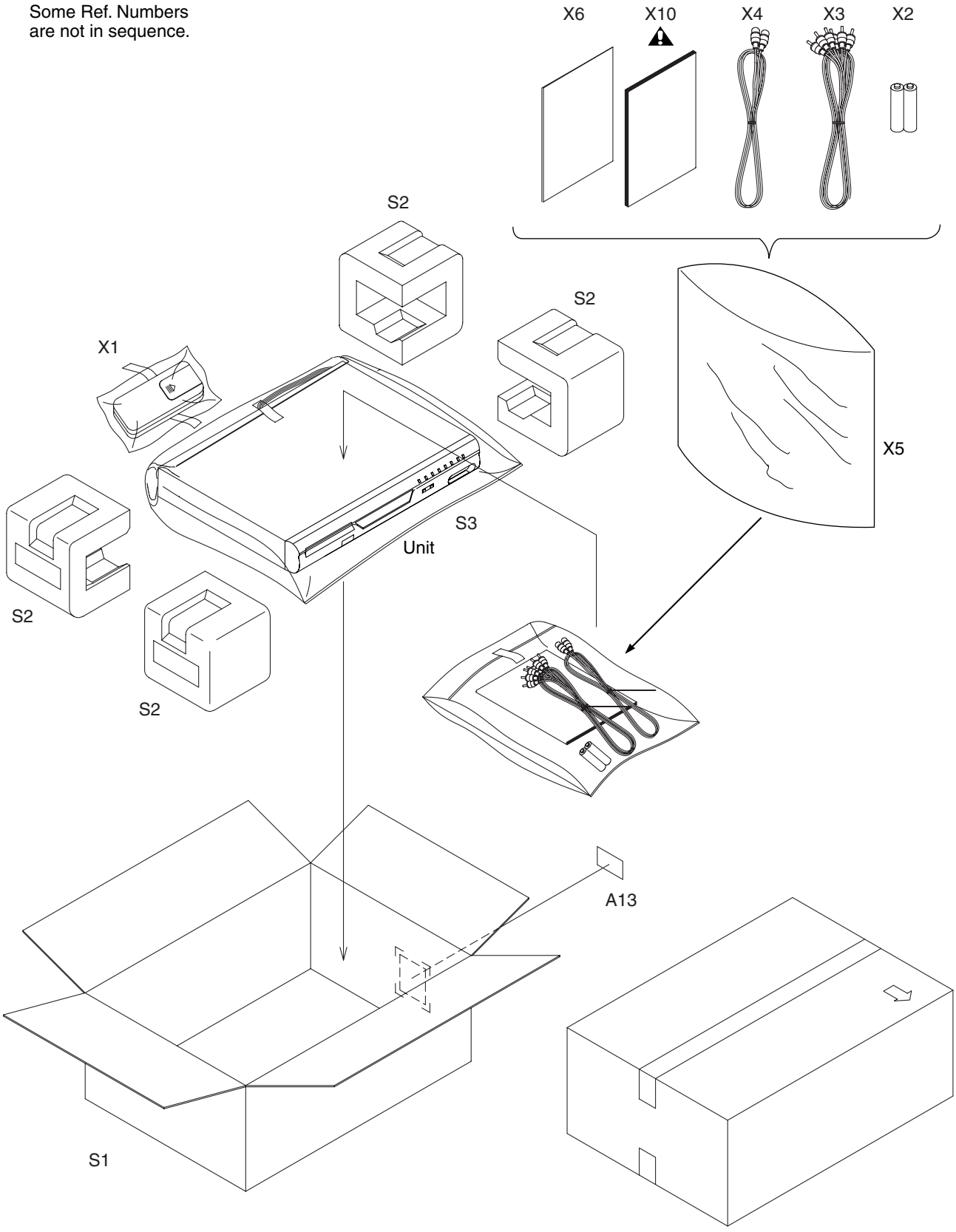
EXPLODED VIEWS

Cabinet



Packing

Some Ref. Numbers
are not in sequence.



MECHANICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTE: Parts that are not assigned part numbers (---------) are not available.

Ref. No.	Description	Part No.
A1X	FRONT ASSEMBLY E6700UD	1VM220289
A2	TOP COVER E6700UD	1VM120049
A3	REAR PANEL E6700UD	1VM220242
A4	CHASSIS E6700ED	1VM120045
A5	FOOT K7010UA	0VM403657A
A11	LABEL,TELEPHONE NO.(SYMPHONIC) E9411UD	----------
A12	MANUFACTURE LABEL	----------
A13	LABEL, BAR CODE HB400UD	----------
A14	LABEL(C) E6700UD	----------
2B1	PCB HOLDER E6700UD	1VM220245
2B2	CABLE COVER E6700UD	1VM420969
2B4	LOCKING CARD SPACER KGLS-12S	XP0U024WD004
2B6	POWER SHEET E6700UD	1VM421074
2B7	EARTH PLATE T E5420UD	0VM410380A
2B8⚠	CAUTION LABEL	----------
2L012	SCREW, B-TIGHT M3X8 BIND HEAD +	GBKB3080
2L021	SCREW, S-TIGHT M3X6 BIND CROM	GBCS3060
2L031	SCREW, S-TIGHT M3X10 BIND HEAD+	GBMS3100
2L081	SCREW, S-TIGHT M3X6 BIND HEAD+	GBMS3060
PACKING		
S1	GIFT BOX CARTON E6700UD	1VM320573
S2	STYROFORM E6700UD	1VM220257
S3	UNIT, BAG E5500UD	0VM411683
ACCESSORIES		
X1	REMOTE CONTROL UNIT DVD 0842 VCZF01RR	NB010UD
X2	DRY BATTERY R6P/2S	XB0M451T0001
X3	AV CORD TSCKA-Y/RW100	WPZ0102TM015
X4	RF CABLE DC95M95M001	WPZ0901CAB01
X5	ACCESSORY BAG E5700UD	0VM415576
X6	QUICK GUIDE E6700UD	1VMN20364
X10⚠	OWNERS MANUAL E6700UD	1VMN20363

ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTES:

1. Parts that are not assigned part numbers (---------) are not available.
2. Tolerance of Capacitors and Resistors are noted with the following symbols.

C.....±0.25% D.....±0.5% F.....±1%

G.....±2% J.....±5% K.....±10%

M.....±20% N.....±30% Z.....+80/-20%

DVD MECHA & DVD MAIN CBA ASSEMBLY

Ref. No.	Description	Part No.
	DVD MECHA & DVD MAIN CBA ASSEMBLY	N78F0BUN

AV CBA ASSEMBLY

Ref. No.	Description	Part No.
	AV CBA ASSEMBLY Consists of the following:	1VSA10853
	AV CBA (SUB-A) SW CBA (SUB-B)	---------- ----------

AV CBA

Ref. No.	Description	Part No.
	AV CBA (SUB-A) Consists of the following:	---------
	CAPACITORS	
C1001⚠	METALLIZED FILM CAP. 0.068µF/250V K	CT2E683DC011
C1002⚠	SAFETY CAP. 2200pF/250V	CCD2EMA0E222
C1003	ELECTROLYTIC CAPACITOR ZR200TA151K16DB	CA2D151DYG03
C1004	CERAMIC CAP. B K 0.01µF/500V	CCD2JKP0B103
C1005	CERAMIC CAP. B K 120pF/500V	CCD2JKP0B121
C1006	CERAMIC CAP.(AX) X K 5600pF/16V	CCA1CKT0X562
C1008	CERAMIC CAP.(AX) B K 3300pF/50V	CA1J332TU011
C1009	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1010	FILM CAP.(P) 0.022µF/50V J	CMA1JJS00223
C1051	ELECTROLYTIC CAP. 100µF/16V M	CE1CMASDL101
C1052	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1053	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1054	CERAMIC CAP. B K 470pF/500V	CCD2JKP0B471
C1055	ELECTROLYTIC CAP. 22µF/50V M	CE1JMASDL220
C1056	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1057	ELECTROLYTIC CAP. 1000µF/6.3V M	CE0KMASDL102
C1058	ELECTROLYTIC CAP. 3300µF/6.3V SL	CE0KMZADL332
C1059	CERAMIC CAP. CH J 47pF/50V	CCD1JJSCH470
C1060	ELECTROLYTIC CAP. 4700µF/6.3V SL	CE0KMZADL472
C1061	ELECTROLYTIC CAP. 1000µF/6.3V M	CE0KMASDL102
C1063	ELECTROLYTIC CAP. 1000µF/16V M(105°C)	CE1CMASTH102
C1064	ELECTROLYTIC CAP. 470µF/16V M	CE1CMASDL471
C1065	CHIP CERAMIC CAP.(1608) B K 0.033µF/50V	CHD1JK30B333
C1066	CERAMIC CAP. B K 220pF/500V	CCD2JKP0B221
C1067	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASDL100
C1068	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1069	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1070	ELECTROLYTIC CAP. 100µF/6.3V M	CE0KMASDL101
C1074	ELECTROLYTIC CAP. 100µF/6.3V M	CE0KMASDL101
C1075	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1076	ELECTROLYTIC CAP. 100µF/6.3V M	CE0KMASDL101
C1081	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1082	ELECTROLYTIC CAP. 100µF/6.3V M	CE0KMASDL101
C1084	CHIP CERAMIC CAP.(1608) B K 0.1µF/25V	CHD1EK30B104
C1101	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1102	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1105	CHIP CERAMIC CAP.(1608) CH J 270pF/50V	CHD1JJ3CH271
C1106	CHIP CERAMIC CAP.(1608) CH J 270pF/50V	CHD1JJ3CH271
C1107	CHIP CERAMIC CAP.(1608) CH J 47pF/50V	CHD1JJ3CH470
C1108	CHIP CERAMIC CAP.(1608) CH J 47pF/50V	CHD1JJ3CH470
C1121	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1122	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1130	ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASDL471
C1132	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASDL470
C1133	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1149	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASDL470
C1150	ELECTROLYTIC CAP. 100µF/16V M	CE1CMASDL101
C1151	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C1152	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C1153	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1154	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1157	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1158	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1159	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1160	ELECTROLYTIC CAP. 220µF/16V M	CE1CMASDL221
C1161	ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASDL471
C1162	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1163	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1175	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1176	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1181	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1182	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C1191	ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASDL471
C1212	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1214	ELECTROLYTIC CAP. 47µF/6.3V M H7	CE0KMASSL470
C1301	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1302	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1303	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1304	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1305	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1306	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1313	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1314	ELECTROLYTIC CAP. 22µF/16V M	CE1CMASDL220
C1315	ELECTROLYTIC CAP. 100µF/6.3V M	CE0KMASDL101
C1316	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1331	CHIP CERAMIC CAP. CH J 56pF/50V	CHD1JJ3CH560
C1332	CHIP CERAMIC CAP. CH J 56pF/50V	CHD1JJ3CH560
C1333	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1334	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1335	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C1336	PCB JUMPER D0.6-P5.0	JW5.0T

Ref. No.	Description	Part No.
C1337	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1405	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C1406	ELECTROLYTIC CAP. 1μF/50V M	CE1JMASDL1R0
C1407	ELECTROLYTIC CAP. 1μF/50V M	CE1JMASDL1R0
C1408	ELECTROLYTIC CAP. 1μF/50V M	CE1JMASDL1R0
C1409	ELECTROLYTIC CAP. 22μF/16V M	CE1CMASDL220
C1410	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C1411	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1413	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1414	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1415	ELECTROLYTIC CAP. 100μF/6.3V M	CE0KMASDL101
C1417	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1418	ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASDL471
C1419	ELECTROLYTIC CAP. 1000μF/6.3V M	CE0KMASDL102
C1420	ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASDL471
C1421	ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASDL471
C1501	ELECTROLYTIC CAP. 1000μF/6.3V M	CE0KMASDL102
C1502	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1503	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1506	CHIP CERAMIC CAP.(1608) CH J 22pF/50V	CHD1JJ3CH220
C1507	CHIP CERAMIC CAP. CH J 18pF/50V	CHD1JJ3CH180
C1508	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
If C1509 is 0.015μF, then IC1502 is BU4219G-TR.		
C1509	CHIP CERAMIC CAP.(1608) B K 0.015μF/50V	CHD1JK30B153
IC1502	RESET IC BU4219G-TR	QSZBA0TRM090
If C1509 is 0.1μF, then IC1502 is IC-PST3619NR.		
C1509	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
IC1502	SYSTEM RESET IC IC-PST3619NR	QSZBA0TMM151
C1510	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V	CHD1JJ3CH102
C1512	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C1513	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C1516	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C1527	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1528	ELECTROLYTIC CAP. 100μF/6.3V M	CE0KMASDL101
C1529	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1533	ELECTROLYTIC CAP. 100μF/6.3V M	CE0KMASDL101
C1534	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1701	ELECTROLYTIC CAP. 1000μF/6.3V M	CE0KMASDL102
C1702	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1703	ELECTROLYTIC CAP. 100μF/6.3V M	CE0KMASDL101
C1704	CHIP CERAMIC CAP.(1608) CH J 47pF/50V	CHD1JJ3CH470
C1706	CHIP CERAMIC CAP.(1608) B K 0.033μF/50V	CHD1JK30B333
C1708	ELECTROLYTIC CAP. 1μF/50V M	CE1JMASDL1R0
C1709	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1712	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V	CHD1JJ3CH102
C1713	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
C1714	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
C1715	ELECTROLYTIC CAP. 0.33μF/50V M	CE1JMASDLR33
C1716	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1718	ELECTROLYTIC CAP. 4.7μF/50V M	CE1JMASDL4R7
C1719	ELECTROLYTIC CAP. 2.2μF/50V M	CE1JMASDL2R2
C1720	ELECTROLYTIC CAP. 2.2μF/50V M	CE1JMASDL2R2
C1721	ELECTROLYTIC CAP. 2.2μF/50V M	CE1JMASDL2R2
C1722	ELECTROLYTIC CAP. 1μF/50V M	CE1JMASDL1R0
C1723	ELECTROLYTIC CAP. 1μF/50V M	CE1JMASDL1R0
C1724	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C1725	ELECTROLYTIC CAP. 3.3μF/50V M	CE1JMASDL3R3
C1726	ELECTROLYTIC CAP. 3.3μF/50V M	CE1JMASDL3R3
C1727	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1728	CHIP CERAMIC CAP.(1608) B K 0.022μF/50V	CHD1JK30B223
C1729	ELECTROLYTIC CAP. 2.2μF/50V M	CE1JMASDL2R2
C1730	CHIP CERAMIC CAP.(1608) B K 0.033μF/50V	CHD1JK30B333
C1731	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104

Ref. No.	Description	Part No.
C1732	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1788	ELECTROLYTIC CAP. 100μF/6.3V M NP	CP0KMASNC101
C2001	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2002	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C2003	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2004	ELECTROLYTIC CAP. 100μF/6.3V M	CE0KMASDL101
C2005	ELECTROLYTIC CAP. 100μF/6.3V M	CE0KMASDL101
C2006	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2007	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2008	ELECTROLYTIC CAP. 3.3μF/50V M	CE1JMASDL3R3
C2009	ELECTROLYTIC CAP. 3.3μF/50V M	CE1JMASDL3R3
C2010	ELECTROLYTIC CAP. 3.3μF/50V M	CE1JMASDL3R3
CONNECTOR		
CN1502	PH CONNECTOR (WHITE) TOP 3P B3B-PH-K-S(LF)	J3PHC03JG017
DIODES		
D1001	DIODE 1N5397-B	NDLZ001N5397
D1002	DIODE 1N5397-B	NDLZ001N5397
D1003	DIODE 1N5397-B	NDLZ001N5397
D1004	DIODE 1N5397-B	NDLZ001N5397
D1005	PCB JUMPER D0.6-P5.0	JW5.0T
D1006	RECTIFIER DIODE BA157	NDQZ000BA157
D1007	SWITCHING DIODE 1N4148M	NDTZ01N4148M
D1008	SWITCHING DIODE 1N4148M	NDTZ01N4148M
D1009	SWITCHING DIODE 1N4148M	NDTZ01N4148M
D1010	SWITCHING DIODE 1N4148M	NDTZ01N4148M
D1011	SWITCHING DIODE 1N4148M	NDTZ01N4148M
D1051	RECTIFIER DIODE BA157	NDQZ000BA157
D1053	ZENER DIODE DZ-20BSBT265	NDTB00DZ20BS
D1054	RECTIFIER DIODE BA157	NDQZ000BA157
D1055	SCHOTTKY BARRIER DIODE SB140	NDQZ000SB140
D1056	SCHOTTKY BARRIER DIODE SB240-B/P	NDWZ000SB240
D1058	SCHOTTKY BARRIER DIODE SB340	NDQZ000SB340
D1060	SWITCHING DIODE 1N4148M	NDTZ01N4148M
D1061	SWITCHING DIODE 1N4148M	NDTZ01N4148M
D1063	SCHOTTKY BARRIER DIODE SB390	NDQZ000SB390
D1064	ZENER DIODE DZ-15BSAT265	NDTA00DZ15BS
D1065	PCB JUMPER D0.6-P10.0	JW10.0T
D1067	ZENER DIODE DZ-6.8BSBT265	NDTB0DZ6R8BS
D1068	RECTIFIER DIODE BA157	NDQZ000BA157
D1070	SWITCHING DIODE 1N4148M	NDTZ01N4148M
D1071	SWITCHING DIODE 1N4148M	NDTZ01N4148M
D1102	ZENER DIODE DZ-5.6BSBT265	NDTB0DZ5R6BS
D1150	ZENER DIODE DZ-11BSBT265	NDTB00DZ11BS
D1503	SWITCHING DIODE 1N4148M	NDTZ01N4148M
D1504	ZENER DIODE DZ-3.0BSBT265	NDTB0DZ3R0BS
D1507	SWITCHING DIODE 1N4148M	NDTZ01N4148M
D1508	SWITCHING DIODE 1N4148M	NDTZ01N4148M
D1701	ZENER DIODE DZ-33BSBT265	NDTB00DZ33BS
ICS		
IC1001⚠	PHOTOCOUPLER LTV-817B-F	NPEB0LTV817F
IC1051	IC:SHUNT REGULATOR KIA431-AT/P	NSZBA0TJY036
IC1101	IC:OP AMP KIA4558P/P	NSZBA0SJY035
IC1102	IC:OP AMP KIA4558P/P	NSZBA0SJY035
IC1103	IC:OP AMP RC4580IP	NSZBA0STY173
IC1104	IC(ANALOG SW) CD4052BPWR	NSZBA0TTY142
IC1301	VIDEO SWITCH MM1697AJBE	QSZBA0TMM150
IC1401	DRIVER FOR DVD MM1637XVBE	QSZBA0TMM102
IC1501	MICROCONTROLLER 8BIT MN101C77A FA1	QSZAB0RMS028
If IC1502 is BU4219G-TR, then C1509 is 0.015μF.		
IC1502	RESET IC BU4219G-TR	QSZBA0TRM090
C1509	CHIP CERAMIC CAP.(1608) B K 0.015μF/50V	CHD1JK30B153

Ref. No.	Description	Part No.
If IC1502 is IC-PST3619NR, then C1509 is 0.1μF.		
IC1502	SYSTEM RESET IC IC-PST3619NR	QSZBA0TMM151
C1509	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
IC1503	VOLTAGE REGULATOR PQ070XF01SZH	QSZBA0SSH054
IC1504	VOLTAGE REGULATOR PQ070XF01SZH	QSZBA0SSH054
IC1701	IC:MTS DECORDER AN5832SA-E1	QSZBA0TMS003
IC2001	FL DRIVER IC PT6313-S-TP	NSZBA0TG2006
COILS		
L1001⚠	LINE FILTER 27MH TLF14CB2730R4	LLBG00ZTU034
L1006	BEAD CORE B16 RH 3.5X10X1.3	XL03010XM001
L1007	BEAD CORE B16 RH 3.5X10X1.3	XL03010XM001
L1051	INDUCTOR(15μH) CWKB-150K	LLC150KKV005
L1052	INDUCTOR(18μH) CWKB-180K	LLC180KKV005
L1053	CHOKE COIL 22μH-K	LLBD00PKV006
L1054	CHOKE COIL 22μH-K	LLBD00PKV006
L1101	INDUCTOR(0.47μH K) LAP02TAR47K	LLAXKATTUR47
L1102	INDUCTOR(100μH K) LAP02TA101K	LLAXKATTU101
L1301	PCB JUMPER D0.6-P5.0	JW5.0T
L1401	PCB JUMPER D0.6-P5.0	JW5.0T
L1701	CHOKE COIL 22μH-K	LLBD00PKV006
L1704	PCB JUMPER D0.6-P5.0	JW5.0T
L2001	INDUCTOR(100μH K) LAP02TA101K	LLAXKATTU101
TRANSISTORS		
Q1001	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1002⚠	FET 2SK3757(Q)	QFWZ02SK3757
Q1003	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1053	TRANSISTOR S2Y52(FUNAI)	QQWZ000S2Y52
Q1054	TRANSISTOR 2SA966(Y)	QQSY002SA966
Q1055	TRANSISTOR KTA1267Y-AT/P	NQSYKTA1267P
Q1056	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1057	TRANSISTOR KTC3205-Y-AT/P	NQSYKTC3205P
Q1063	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1101	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1102	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1103	TRANSISTOR KTA1267Y-AT/P	NQSYKTA1267P
Q1104	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1111	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1112	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1120	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1150	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1303	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1304	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1501	TRANSISTOR KTA1267Y-AT/P	NQSYKTA1267P
Q1502	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1505	RES. BUILT-IN TRANSISTOR KRC103M	NQSZ0KRC103M
RESISTORS		
R1001⚠	CARBON RES. 1/2W J 3.3M Ω	RCX2335DP001
R1002	CARBON RES. 1/4W J 680k Ω	RCX4JATZ0684
R1003	CARBON RES. 1/4W J 2.7M Ω	RCX4JATZ0275
R1004	CARBON RES. 1/4W J 2.7M Ω	RCX4JATZ0275
R1005	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R1006	CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R1007	METAL OXIDE FILM RES. 2W J 1.5 Ω	RN02JZLZ01R5
R1008	METAL FILM RES.(STRAIGHT) 1W J 15k Ω	RN01JZPZ0153
R1009	CARBON RES. 1/4W J 15k Ω	RCX4JATZ0153
R1010	METAL RESISTER. 2W J 0.56 Ω	RN02R56ZU001
R1011	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1012	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1013	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1014	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1015	CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R1016	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102

Ref. No.	Description	Part No.
R1051	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1054	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1055	CARBON RES. 1/4W J 12 Ω	RCX4JATZ0120
R1057	PCB JUMPER D0.6-P5.0	JW5.0T
R1058	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R1059	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R1060	CHIP RES.(1608) 1/10W J 390 Ω	RRXAJR5Z0391
R1061	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R1062	CHIP RES.(1608) 1/10W J 620 Ω	RRXAJR5Z0621
R1063	PCB JUMPER D0.6-P11.5	JW11.5T
R1064	CARBON RES. 1/2W J 680 Ω	RCX2JZPZ0681
R1065	CHIP RES.(1608) 1/10W J 620 Ω	RRXAJR5Z0621
R1066	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1067	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R1068	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R1070	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1072	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R1073	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1074	CHIP RES.(1608) 1/10W J 620 Ω	RRXAJR5Z0621
R1075	CARBON RES. 1/2W J 680 Ω	RCX2JZPZ0681
R1076	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R1077	CARBON RES. 1/4W J 330 Ω	RCX4JATZ0331
R1079	CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R1080	CHIP RES.(1608) 1/10W F 75 Ω	RRXAFR5H0750
R1081	CHIP RES.(1608) 1/10W F 2.7k Ω	RRXAFR5H0272
R1082	CHIP RES. 1/10W F 5.6k Ω	RRXAFR5H0562
R1083	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R1084	CHIP RES.(1608) 1/10W J 15k Ω	RRXAJR5Z0153
R1085	CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R1087	CARBON RES. 1/4W G 1.5k Ω	RCX4GATZ0152
R1088	CARBON RES. 1/2W J 680 Ω	RCX2JZPZ0681
R1089	CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R1090	CHIP RES.(1608) 1/10W J 330 Ω	RRXAJR5Z0331
R1091	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1093	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1095	CHIP RES.(1608) 1/10W F 100 Ω	RRXAFR5H0101
R1096	CHIP RES.(1608) 1/10W F 1.5k Ω	RRXAFR5H0152
R1099	CHIP RES.(1608) 1/10W F 4.7k Ω	RRXAFR5H0472
R1105	CHIP RES.(1608) 1/10W F 8.2k Ω	RRXAFR5H0822
R1106	CHIP RES.(1608) 1/10W F 8.2k Ω	RRXAFR5H0822
R1107	CHIP RES.(1608) 1/10W J 13k Ω	RRXAJR5Z0133
R1108	CHIP RES.(1608) 1/10W F 13k Ω	RRXAFR5H0133
R1109	CHIP RES.(1608) 1/10W F 13k Ω	RRXAFR5H0133
R1110	CHIP RES.(1608) 1/10W J 13k Ω	RRXAJR5Z0133
R1121	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R1122	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R1123	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R1124	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R1125	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1126	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1127	CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R1128	CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R1131	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1134	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R1135	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R1136	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1138	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1140	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R1148	CHIP RES.(1608) 1/10W J 150 Ω	RRXAJR5Z0151
R1149	CHIP RES.(1608) 1/10W J 150 Ω	RRXAJR5Z0151
R1151	CHIP RES.(1608) 1/10W F 33k Ω	RRXAFR5H0333
R1152	CHIP RES.(1608) 1/10W F 33k Ω	RRXAFR5H0333
R1155	CHIP RES.(1608) 1/10W F 10k Ω	RRXAFR5H0103

Ref. No.	Description	Part No.
R1156	CHIP RES.(1608) 1/10W F 10k Ω	RRXAFR5H0103
R1157	CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R1158	CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R1159	CHIP RES.(1608) 1/10W F 10k Ω	RRXAFR5H0103
R1160	CHIP RES.(1608) 1/10W F 10k Ω	RRXAFR5H0103
R1161	CHIP RES.(1608) 1/10W F 560k Ω	RRXAFR5H0564
R1162	CHIP RES.(1608) 1/10W F 560k Ω	RRXAFR5H0564
R1163	CHIP RES.(1608) 1/10W J 330 Ω	RRXAJR5Z0331
R1164	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1165	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1173	CHIP RES.(1608) 1/10W J 180k Ω	RRXAJR5Z0184
R1174	CHIP RES.(1608) 1/10W J 180k Ω	RRXAJR5Z0184
R1179	CHIP RES.(1608) 1/10W J 180k Ω	RRXAJR5Z0184
R1180	CHIP RES.(1608) 1/10W J 180k Ω	RRXAJR5Z0184
R1191	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1192	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1193	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1194	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1195	CHIP RES.(1608) 1/10W F 68k Ω	RRXAFR5H0683
R1196	CHIP RES.(1608) 1/10W F 68k Ω	RRXAFR5H0683
R1197	CHIP RES.(1608) 1/10W F 68k Ω	RRXAFR5H0683
R1198	CHIP RES.(1608) 1/10W F 68k Ω	RRXAFR5H0683
R1199	CHIP RES.(1608) 1/10W F 62k Ω	RRXAFR5H0623
R1200	CHIP RES.(1608) 1/10W F 62k Ω	RRXAFR5H0623
R1201	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R1202	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R1203	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R1204	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R1205	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R1206	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R1207	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1210	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1211	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1212	CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R1213	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1214	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1215	CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R1217	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R1301	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1302	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1304	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1311	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1312	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1313	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1331	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1334	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R1337	CHIP RES.(1608) 1/10W J 3k Ω	RRXAJR5Z0302
R1405	CHIP RES.(1608) 1/10W J 5.1k Ω	RRXAJR5Z0512
R1406	CHIP RES.(1608) 1/10W F 220 Ω	RRXAFR5H0221
R1407	CHIP RES.(1608) 1/10W F 200 Ω	RRXAFR5H0201
R1408	CHIP RES.(1608) 1/10W F 200 Ω	RRXAFR5H0201
R1409	CHIP RES.(1608) 1/10W F 200 Ω	RRXAFR5H0201
R1420	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1421	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1422	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1423	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1424	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1430	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1501	CHIP RES.(1608) 1/10W J 3.3k Ω	RRXAJR5Z0332
R1502	CHIP RES.(1608) 1/10W J 3.3k Ω	RRXAJR5Z0332
R1503	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1505	CHIP RES.(1608) 1/10W J 820k Ω	RRXAJR5Z0824
R1506	CHIP RES.(1608) 1/10W J 470k Ω	RRXAJR5Z0474

Ref. No.	Description	Part No.
R1507	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R1508	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1511	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1513	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1514	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1515	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1516	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1517	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1518	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1519	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1520	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1524	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1527	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1528	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1531	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1532	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1533	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1534	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R1535	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1536	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R1538	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R1539	CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R1541	CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R1542	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1545	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R1546	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R1547	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R1555	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1556	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1557	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1558	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R1565	CHIP RES.(1608) 1/10W J 2.7k Ω	RRXAJR5Z0272
R1566	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1567	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1568	CHIP RES.(1608) 1/10W F 10k Ω	RRXAFR5H0103
R1569	CHIP RES. 1/10W F 15k Ω	RRXAFR5H0153
R1570	CHIP RES.(1608) 1/10W F 1.5k Ω	RRXAFR5H0152
R1571	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1574	CHIP RES.(1608) 1/10W F 10k Ω	RRXAFR5H0103
R1575	CHIP RES.(1608) 1/10W F 10k Ω	RRXAFR5H0103
R1576	CHIP RES.(1608) 1/16W F 120 Ω	RRXAFR5H0121
R1577	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R1701	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1705	CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R1706	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1710	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1711	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1712	CHIP RES.(1608) 1/10W J 3.3k Ω	RRXAJR5Z0332
R1713	CHIP RES.(1608) 1/10W J 180k Ω	RRXAJR5Z0184
R1718	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1791	CHIP RES.(1608) 1/10W J 12k Ω	RRXAJR5Z0123
R1792	CHIP RES.(1608) 1/10W J 12k Ω	RRXAJR5Z0123
R1793	CHIP RES.(1608) 1/10W J 3k Ω	RRXAJR5Z0302
R1794	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R2001	CHIP RES.(1608) 1/10W J 33 Ω	RRXAJR5Z0330
R2003	CHIP RES.(1608) 1/10W J 68k Ω	RRXAJR5Z0683
R2004	CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R2005	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R2006	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R2007	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
MISCELLANEOUS		
2B3	FL HOLDER E6700UD	1VM320515

Ref. No.	Description	Part No.
AC1001⚠	AC CORD PB8B2F9110A-055	WAC0162LW004
F1001⚠	FUSE SIC 1A 250V U/C T	PAGG20CW3102
FL2001	VACUUM FLUORESCENT DISPLAY 7-BT-301N	TVFD1C0FT048
FH1001	FUSE HOLDER MSF-015	XH01Z00LY001
FH1002	FUSE HOLDER MSF-015	XH01Z00LY001
JK2101	S TYPE JACK DMD1-3411PP003	JXEL040RP002
JK2102	RCA JACK(YELLOW) MTJ-032-05B-20	JXRL010LY038
JK2103	RCA JACK(WHITE) MTJ-032-05B-22	JXRL010LY039
JK2104	RCA JACK(RED) MTJ-032-05A-21	JYRL010LY010
JK2105	S TYPE JACK MDC-050V-2.4	JXEL040LY001
JK2106	RCA JACK 3PIN MSD-243V-07 NI FE LF	JXRL030LY124
JK2201	RCA JACK 3PIN MSD-243V-07 NI FE LF	JXRL030LY124
JK2202	S TYPE JACK MDC-050V-2.4	JXEL040LY001
JK2203	RCA JACK 3PIN MSD-243V-18 NI	JXRL030LY073
JK2206	RCA JACK(BLACK) MSP-251V-01 NI	JXRL010LY070
JP1001	PCB JUMPER D0.6-P10.0	JW10.0T
JP1053	PCB JUMPER D0.6-P8.0	JW8.0T
JP1054	PCB JUMPER D0.6-P5.0	JW5.0T
JP1082	PCB JUMPER D0.6-P17.5	JW17.5T
JP1083	PCB JUMPER D0.6-P7.5	JW7.5T
JP1084	PCB JUMPER D0.6-P17.5	JW17.5T
JP1085	PCB JUMPER D0.6-P17.5	JW17.5T
JP1086	PCB JUMPER D0.6-P17.5	JW17.5T
JP1090	PCB JUMPER D0.6-P5.0	JW5.0T
JP1091	PCB JUMPER D0.6-P15.5	JW15.5T
JP1092	PCB JUMPER D0.6-P7.5	JW7.5T
JP1093	PCB JUMPER D0.6-P7.5	JW7.5T
JP1094	PCB JUMPER D0.6-P7.5	JW7.5T
JP1095	PCB JUMPER D0.6-P17.5	JW17.5T
JP1097	PCB JUMPER D0.6-P5.0	JW5.0T
JP1098	PCB JUMPER D0.6-P5.0	JW5.0T
JP1099	PCB JUMPER D0.6-P5.0	JW5.0T
JP1103	PCB JUMPER D0.6-P5.0	JW5.0T
JP1104	PCB JUMPER D0.6-P12.5	JW12.5T
JP1105	PCB JUMPER D0.6-P10.0	JW10.0T
JP1106	PCB JUMPER D0.6-P12.0	JW12.0T
JP1107	PCB JUMPER D0.6-P18.0	JW18.0T
JP1108	PCB JUMPER D0.6-P5.0	JW5.0T
JP1109	PCB JUMPER D0.6-P5.0	JW5.0T
JP1110	PCB JUMPER D0.6-P9.5	JW9.5T
JP1201	PCB JUMPER D0.6-P5.0	JW5.0T
JP1303	PCB JUMPER D0.6-P7.5	JW7.5T
JP1311	PCB JUMPER D0.6-P12.5	JW12.5T
JP1312	PCB JUMPER D0.6-P5.0	JW5.0T
JP1313	PCB JUMPER D0.6-P12.5	JW12.5T
JP1402	PCB JUMPER D0.6-P5.0	JW5.0T
JP1404	PCB JUMPER D0.6-P7.5	JW7.5T
JP1405	PCB JUMPER D0.6-P5.0	JW5.0T
JP1407	PCB JUMPER D0.6-P5.0	JW5.0T
JP1409	PCB JUMPER D0.6-P7.5	JW7.5T
JP1410	PCB JUMPER D0.6-P27.0	JW27.0T
JP1414	PCB JUMPER D0.6-P5.0	JW5.0T
JP1415	PCB JUMPER D0.6-P5.0	JW5.0T
JP1420	PCB JUMPER D0.6-P15.0	JW15.0T
JP1508	PCB JUMPER D0.6-P6.5	JW6.5T
JP1514	PCB JUMPER D0.6-P17.5	JW17.5T
JP1519	PCB JUMPER D0.6-P12.5	JW12.5T
JP1702	PCB JUMPER D0.6-P5.0	JW5.0T
JP1703	PCB JUMPER D0.6-P5.0	JW5.0T
JP1704	PCB JUMPER D0.6-P5.0	JW5.0T
JP2101	PCB JUMPER D0.6-P5.0	JW5.0T
JP2103	PCB JUMPER D0.6-P5.0	JW5.0T
RE2001	REMOTE RECEIVER MIM-93M6DKF	USESJRSUNT01
T1001⚠	SWITCHING TRANS 5710	LTT00CPKT173
TU1701	TUNER UNIT VJ025AF	UTUNNTUSP029
W2	FFC(30PIN) AV-MAIN	WX1E6700-002
W3	FFC(28PIN) AV-MAIN	WX1E6700-003
X1501	CERAMIC RESONETOR CSTLS8M00G56-B0	FY0805PMR002
X1502	X'TAL 32.768kHz(20PPM)	FXC323LDS002

SW CBA

Ref. No.	Description	Part No.
	SW CBA (SUB-B) Consists of the following:	---------
	RESISTORS	
R3001	CHIP RES.(1608) 1/10W J 300 Ω	RRXAJR5Z0301
R3002	CHIP RES.(1608) 1/10W J 620 Ω	RRXAJR5Z0621
R3003	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R3004	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R3005	CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R3006	CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R3007	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R3008	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R3009	CHIP RES.(1608) 1/10W J 620 Ω	RRXAJR5Z0621
R3010	CHIP RES.(1608) 1/10W J 300 Ω	RRXAJR5Z0301
	SWITCHES	
SW3001	TACT SWITCH KSM0612B	SST0101HH003
SW3002	TACT SWITCH KSM0612B	SST0101HH003
SW3003	TACT SWITCH KSM0612B	SST0101HH003
SW3004	TACT SWITCH KSM0612B	SST0101HH003
SW3005	TACT SWITCH KSM0612B	SST0101HH003
SW3006	TACT SWITCH KSM0612B	SST0101HH003
SW3007	TACT SWITCH KSM0612B	SST0101HH003
SW3008	TACT SWITCH KSM0612B	SST0101HH003
SW3009	TACT SWITCH KSM0612B	SST0101HH003
SW3010	TACT SWITCH KSM0612B	SST0101HH003
	MISCELLANEOUS	
W5	WIRE ASSEMBLY(3PIN) AV-SW	WX1E6700-005

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E6700UD
2005-02-03